

## إضاءات على :

• الملتقى الدولي السنوي الرابع عشر للأسمدة  
والمعرض المصاحب

5 - 7 شباط - فبراير 2008، القاهرة

• الندوة العلمية حول سوسة النخيل الحمراء  
25 - 26 آذار/مارس 2008، الرياض - المملكة العربية السعودية

## افتتاحية العدد:

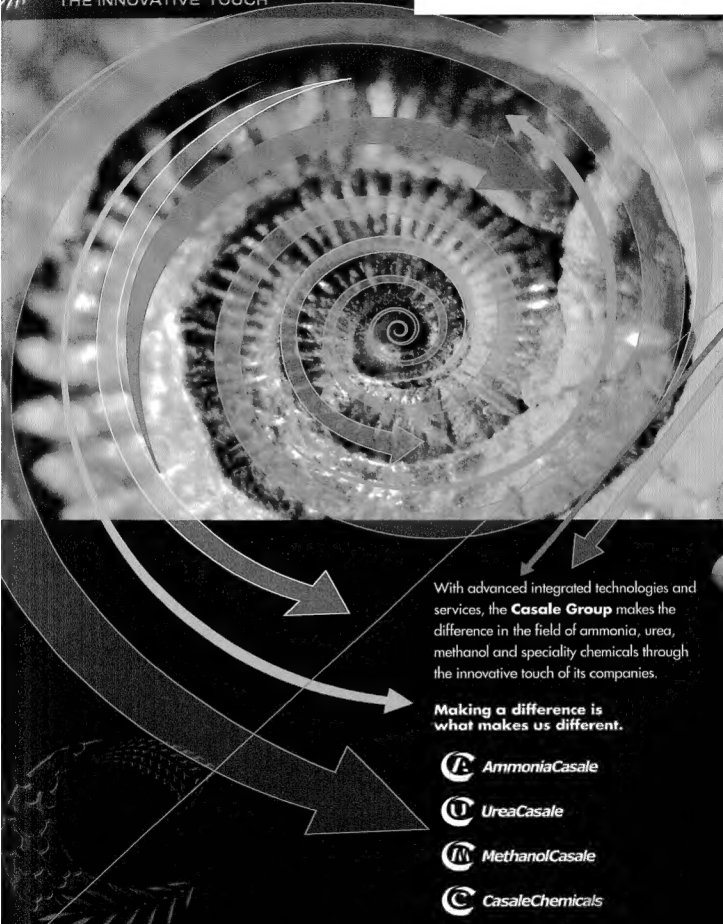
نائب الرئيس للأسمدة - شركة سابك

• المؤتمر الفني الدولي للأسمدة الواحد والعشرون

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هيلتون جدة - المملكة العربية السعودية





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# إماتامية العموم

## نخلة ياسفة على طريق التكامل العربي

المهندس / فهد بن سعد الشعبي

نائب الرئيس للأسمة

الشركة السعودية للصناعات الأساسية (سابك)

المملكة العربية السعودية

## الاسمة العربية



النخلة تلك الشجرة المباركة التي كرمها الله سبحانه وتعالى في العديد من الآيات الثبات بمحكم تنزله ، حيث قال جل شأنه : ( وجعلنا فيها جنات من نخيل وأعناب) .. كما حشا رسوله الأمين على العناية البالغة بها ، فقال تعالى الله عليه وسلم (إذا قامت الساعة وفي يد أحدكم فسيلة ، فإن استطاع أن لا يقوم حتى يغرسها فليغرسها) .

هذه الشجرة المباركة تعرض لمخاطر كبيرة على يد تلك الآفة المسماة (سوسة النخيل الحمراء) ، ليس على المستوى العربي فحسب ، بل أيضاً على الصعيد العالمي ، ففي إسبانيا - على سبيل المثال - ينفق حوالي عشرة ملايين يورو سنوياً لمكافحة هذه السوسة رغم محدودية أعداد النخيل المصابة ، أما في المملكة العربية السعودية فقد أدت السوسة إلى اغتيال نحو (32) ألف نخلة في عام 2006م وحده ، فيما يتنازل أكثر من (1300) نخلة سنوياً بدولة البحرين ، وتباني الأرقام صموداً ومهبطاً في باقي الأقطار العربية ، الأمر الذي يستلزم تضامناً الجهود لوقف الخطر الزاحف ، وتفعيل التعاون العربي لرعاية هذا المحصول الاستراتيجي والحد من أراضه ، والوصول إلى العلاج الفعال للقضاء على سوسة النخيل .

وحسناً فعلت الشركة السعودية للصناعات الأساسية (سابك) ، حين بادرت باستضافة ورشة العمل ، التي عقدت تحت عنوان (عناظر سوسة النخيل الحمراء) في مركزها الرئيس بالعاصمة السعودية (الرياض) يومي 25 و26 مارس الماضي ، بالتيسق مع الاتحاد العربي للأسمدة ، وشارك فيها حشد من الخبراء والاختصاصيين من مختلف الأقطار العربية . وقد تناولت هذه الورشة العديد من أوراق العمل الثرية والطروحات العملية التي تضيء الطريق أمام ازدهار زراعة النخيل والقضاء على آفاتة ، لاسيما (السوسة الحمراء) التي تشكل أشد الأخطار المهددة له .

إن العناية بالنخيل واجب ديني قبل أن تكون واجباً حياتياً ، وتأتي مبادرة (سابك) خطوة رائدة من هذه الشركة الرائدة ، تؤكد بها حسنها القومي واتساعها العربي ، وحرصها على الاضطلاع بمسئولياتها الاجتماعية إذ إنه بمجتمعها المحلي والإقليمي ، ومختلف المجتمعات الأخرى العالمية التي توجه إليها منتجاتها وخدماتها . وليس ذلك بغيره على الشركة العربية ، التي سابت زمانها واجتازت حدود مكانها ، لتصبح في حقيقة قياسية من أكبر عشر شركات بتروكيماوية عالمية ، وأكبر شركة صناعية غير بتروية في منطقة الشرق الأوسط .

تمثل (سابك) رافداً للتكامل الاقتصادي العربي الشمولي من خلال حقبة منتجاتها الواسعة التي تشمل البتروكيماويات والأسمدة والصلب ، وتشكل أساساً للتنمية الزراعية ، والصناعية ، والنهضة العمرانية ، فيما تضم منظومتها الإنتاجية ثلاث شركات كبرى لصناعة اليوريا والأمونيا والأسمدة المركبة والوقود والمواد البتروية ، بطاقة سنوية تتجاوز ثمانية ملايين طن ، وهي تمنح الأفضلية للمشاريع الزراعية العربية ، وتقدم منتجاتها مصحوبة بآرقى الخدمات الفنية التي تحقق الاستخدام الأمثل لكل منها فيما لطبيعة المناخ والتربة والمحصول ، وصولاً إلى أعلى درجات الإنتاجية ، وإسهاماً متميزاً في تحقيق (الأمن الغذائي) و (الأمن الكيميائي) .

وتحمل (سابك) في جعبتها زادا والفرأ من الطموح ، متبينة مشروعا استراتيجياً عملاقاً تطلق عليه (2020) ، ترمي من خلاله إلى أن تصبح الشركة العالمية الرائدة للمفضلة في مجال الكيماويات ، وبلوغ إجمالي طاقاتها السنوية (130) مليون طن مقابل (55) مليوناً حالياً ، والتوسع في المنتجات المتخصصة التي تحقق لمستندتها أعلى قيمة مضافة ممكنة ، ما يشكل فصحا جديداً للقطاعات الإنتاجية ، ويهيئ مجالات أرحب لإحياء الوحدة الاقتصادية التي ظلت سنوات عديدة تداعب أحيلة أبناء الأمة العربية .

## أعضاء مجلس إدارة الاسمة

رئيس مجلس الإدارة

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نائب رئيس مجلس الإدارة

السيد / موهوب نبيب بنشقرن

الأعضاء

السيد / الفهيلي الكافي

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مصر

المكتور / نزال فلوغ

سوريا

الهمدوس / ميه الرحمن جوامري  
البحرين

الهمدوس / موهوب ميه الله العاني  
العراق

السيد / فهد بن سعه الشعبي  
المملكة العربية السعودية

الهمدوس / موهوب سليم بعلخان  
الأردن

الهمدوس / موهوب راشد الراشه  
الإمارات

السيد / جهاد نام المهي  
الكويت

السيد / سعيه مكي  
الجزائر

السيد / ماهر البلوشي  
سلطنة عمان

الهمدوس / خليفة يمه  
ليبيا

رئيس الشحري

المكتور / شفيق الأشرف

الأمين العام

نائب رئيس الشحري

الهمدوس / موهوب فتحي السيد

الأمين العام المساعد

مدير الشحري

أ. مشيرة مكرم

هيئة الشحري

م. موهوب موهوب

أ. ناصر حيا

الأجراج الفتي - لاهور - ملان - مصر

# الاسمدة العربية

العدد (50) يناير - أبريل 2008

مجلة تصدر عن الأمانة العامة للاتحاد العربي للأسمدة  
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نشره سابقا ولا تلزم الأمانة العامة برد الموضوعات  
التي لا يتم نشرها إلى أصحابها.

الأميحات والمقالات التي تنشرها المجلة لا تقتل رأي  
الاتحاد العربي للأسمدة إلا إذا ذكر عكس ذلك  
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## المحتويات

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الهدم العام لمنطقة الألفية والزراعة، استغلال مانات

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للنسخة الرئيسية من اليمين: المهندس عادل الموزى والمهندس خليفة السويدي والدكتور الجويلي والدكتور الأشقر

# الملتقى الدولي السنوي الرابع عشر للأسمدة والمعرض المصاحب

فندق ماريوت القاهرة: 05 - 07 شباط/فبراير 2008

والصين وأثرها على حركة التجارة العالمية. وقد ركز الملتقى أعماله على تحليل موضوعي ومباشر للأمن الغذائي العالمي والتوجهات المتصاعدة لانتاج الوقود الحيوي. ففى مجال الأمن الغذائي العالمي ومع مايشهده العالم من جوع وفقر لما يقارب 854 مليون انسان على الرغم من وفرة وفائض فى الغذاء أصبح من الضروري محاربه من خلال السياسات الحكيمه للبلدان الاكثر تقدما بالتعاون البناء والصادق مع حكومات البلدان النامية التى من المفترض أن تجعل من الأمن الغذائى إحدى أولوياتها فى التنمية الاقتصادية والاجتماعية.

كما أن أهمية تطوير القطاع الزراعى العربى على الصعيد الإقليمى باتت بشكل ضرورى لكون حاضره ومستقبل الأمن الغذائى العربى يرتبطان بواقع ومستقبل الزراعة وفق مفهوم زراعى تكاملى عربى باعتبار الإقليم وحده اقتصاديه متكامله.

شهدت القاهرة أيام 5، 6، 7 شباط/فبراير 2008 الملتقى الدولي السنوي الرابع عشر للأسمدة الذي نظمه الاتحاد العربى للأسمدة تحت شعار:

«مسيرة الأسمدة إلى أين؟ - الطاقة أم الغذاء ايهما فى المرتبة الأولى» يأتي انعقاد الملتقى هذا العام ليواكب المتغيرات غير المسبوقة التى شهدها عام 2007 منها تنامي الطلب العالمى على الأسمدة المعدنية حيث سجل استهلاك الأسمدة لعام 2007 زيادة غير متوقعة بلغت 5% والارتفاع غير مسبوق فى أسعار الطاقة والإنجاء المتصاعد لإنتاج الوقود الحيوي اعتمادا على فائض المواد الغذائية الأساسية كالقمح، والذرة،..... وما واکبه من زيادة معدل استهلاك الحبوب الذى بلغ ضعفي معدل الاستهلاك لعام 2002 هذا، بالإضافة إلى الإرتفاع الحاد فى أسعار الحبوب والمواد الغذائية والنقص الملحوظ من المخزون العالمى إلى جانب التحولات الاقتصادية وخاصة فى الهند.



السادة اعضاء مجلس ادارة الاتحاد ورؤساء الشركات والوفود المشاركة  
اثناء حفل الافتتاح

في مجال الوقود الحيوي ومع بروز وتصادد الاهتمام العالمي  
بإنتاج الوقود الحيوي (BioFuels) كمصدر طاقة واعد  
يتكامل مع ما هو متاح من مصادر طاقة حيالية التي يؤمل لها أن  
تلعب دورا متزايدا في مزيج الطاقة العالمي خلال الفترة القادمة  
التي من المتوقع أن تلبى 20% من حجم الطلب العالمي على  
الطاقة بحلول عام 2030 ، وأيضاً لقدرة الوقود الحيوي على  
تقليل الانبعاثات الخاصة بغاز ثاني اكسيد الكربون بنسبة تصل  
إلى 90%. نتيجة لذلك سيرتفع معدل استهلاك الأسمدة إلى ما  
يقارب 40 مليون طن بحلول عام 2016 عن معدلات الطلب  
الحالية نتيجة مباشرة للتوجه العالمي لإنتاج المزيد والمزيد من  
المحاصيل الزراعيه اللازمة للغذاء والدخل في صناعة الوقود  
الحيوي. وهذا سيقود بشكل طبيعي إلى بروز طاقات انتاجيه  
اضافيه لمواجهة الطلب المتنامي سنويا ويحفز الدول التي تتوفر  
لها الخامات على الدفع بهذا الاتجاه.

لذا فقد تناولت أجندة المنتدى التي ضمت 18 ورقة عمل مقدمة  
من نخبة مختارة من الخبراء الدوليين، تحليل موضوعي ومباشر  
للأمن الغذائي العالمي والتوجهات المتصاعدة لإنتاج الوقود  
الحيوي والعرض والطلب على الأسمدة بأشكالها وأنواعها  
حيث ناقشت المحاور التالية:

#### السياسات العالمية للأسمدة

ميزان العرض والطلب للأسمدة والمواد الأولية مع التركيز على  
الأسواق الهامة: الهند - الصين - أمريكا - أوروبا.

#### النقل والشحن البحري: الرؤية المستقبلية

كما اختتم برنامج هذا العام بجلسة نقاشية إضافية حول الشحن  
البحري لإفساح المجال بشكل أوسع للتواصل بين المحصور  
وغيره النقل والشحن البحري نظرا لأهمية الموضوع وأثره  
المباشر في أسعار الأسمدة

حضر حفل افتتاح المنتدى معالي الدكتور أحمد جويلي أمين  
عام مجلس الوحدة الاقتصادية العربية، معالي المهندس/ خليفة  
السويدي رئيس الاتحاد والمدير العام لشركة قطر للأسمدة  
الكيمائية، معالي المهندس/ محمد عادل الموزي ممثل صناعة  
الأسمدة المصرية في مجلس إدارة الاتحاد رئيس الشركة القابضة  
للصناعات الكيمائية، معالي الدكتور/ شفيق الأشقر أمين عام  
الاتحاد والسادة أعضاء مجلس إدارة الاتحاد، والسادة رؤساء  
الشركات العاملة أعضاء الاتحاد بالإضافة إلى ممثلي المنظمات  
والهيئات العربية والدولية ذات العلاقة بصناعة وتجارة الأسمدة  
وموادها الخام.

بلغ عدد الحضور في هذا المنتدى نحو 605 مشارك من حوالي  
50 دولة مما يعكس جهود الاتحاد العربي للأسمدة في جعل  
هذا المنتدى أكثر شمولية وأصبح واحدا من أهم التظاهرات  
الاقتصادية المتخصصة على مستوى العالم تحرس الهيئات  
والشركات والمؤسسات والمنظمات العربية والدولية العاملة في  
صناعة وتجارة ونقل الأسمدة والزراعة على الحضور بالإضافة  
إلى خبراء من الجامعات ومراكز البحوث الاقليمية والدولية.

الكامل للتبادل السلعي بين البلاد العربية من خلال البلد بتطبيق منطقة التجارة الحرة الكبرى التي تضم حتى الآن سبع عشرة دولة عربية وافقت علي إزالة كافة القيود الجمركية وغير الجمركية على التبادل التجاري فيما بينها بدءاً من مطلع هذا العام.

وأوضح معالي أن منطقة التجارة الحرة العربية الكبرى تمثل أكبر إنجاز اقتصادي حققه العرب في العصر الحديث، وتعد الخطوة الواقعية والحقيقية الملموسة في طريق التكامل الاقتصادي العربي والوحدة الاقتصادية العربية، وتتطلع بكل الثقة إلى التزام جميع الدول العربية بأحكام هذه اتفاقية ليتم تحقيق طفرة في التجارة العربية البينية من خلال سوق واحدة قوامها 300 مليون مستهلك، وأضاف معالي قائلا أننا نأمل أن يتم وفي وقت قريب إنجاز اتفاقية مماثلة لتحرير تجارة الخدمات بين البلاد العربية، وقد تم إنجاز خطوات لا بأس بها في هذا المجال في نطاق المجلس الاقتصادي بجامعة الدول العربية. إلا أننا يجب أن نؤكد أن ما تم إنجازه في نطاق منطقة التجارة الحرة العربية الكبرى لا يمثل نهاية المطاف، بل هو نقطة الارتكاز للانطلاق إلى مراحل تالية يجب استكمالها. كما أن التطبيق العملي للإعفاء الكامل للتبادل السلعي البيني سيزفر بالتأكيد بعض المشكلات، وسيصطدم بعض العوائق التي لا بد من العمل الجاد على تذليلها، كما يجب إنجاز خطوات ضرورية وفي مقدمتها الاتفاق على قواعد منشأ تقصيلية للسلع الصناعية، وإقرار مجموعة من التسهيلات في مجال النقل، ومساعدة الدول العربية الأقل نمواً لتتمكن من الانضمام إلى هذه الاتفاقية.

ومن منطلق دور مجلس الوحدة الاقتصادية العربية في مسيرة العمل الاقتصادي العربي، أوضح معالي الدكتور أمين عام المجلس أن المجلس قام بوضع استراتيجية للتكامل الاقتصادي العربي للعقدين القادمين 2020 - وفقاً لهذه الاستراتيجية المتكاملة واعتباراً من عام 2008 يعلن عن قيام اتحاد جمركي بين الدول العربية علي مراحل تمتد حتى عام 2015 حيث يتم توحيد الرسوم الجمركية في الدول التي ستقبل الانضمام إلى هذا الاتحاد. وخلال الفترة 2015- 2020 وهي مرحلة السوق المشتركة يتم المزيد من تنسيق السياسات العربية مع بعضها البعض ومنها السياسة المالية والتفدية وإقامة منطقة استثمارية عربية ومنطقة تكنولوجية عربية ومنطقة موطنة عربية. وفي عام 2020 يتم توحيد السياسات وبالأذات السياسة النقدية والمالية وإنشاء بنك مركزي واحد وإصدار عملة عربية واحدة، وهو ما يعرف بمرحلة الاتحاد الاقتصادي. كما تحدث معالي الدكتور جويلي حول العمل التركمي موضحاً إلى أنه عمل تراكمي، بمعنى أنه يجب علينا أن لا ننسى ما تم إنجازه خلال الفترة الماضية بل أن نبني عليه استكمالاً للمسيرة بعيداً عن العوائق، بل بما يحقق المصالح المشتركة، مشيراً إلى أنه في هذا السياق فإن مداخل الإصلاح الحقيقي في البلاد العربية هو الاقتصاد، وإن الإصلاح الاقتصادي هو ما يجب أن نادى به ونعمل عليه، لأنه سيقود بالتأكيد إلى الإصلاح الشامل، داعياً إلى عقد قمة اقتصادية عربية تبحث فقط في الأمور الاقتصادية، ولابد من الاتفاقية على استراتيجية اقتصادية عربية واضحة لا تتأثر بالازمات السياسية.



**الدكتور جويلي**

## لأن منطقة التجارة الحرة العربية الكبرى تمثل أكبر الإنجاز الاقتصادي حققه العرب في العصر الحديث

افتتح معالي الدكتور أحمد جويلي أمين عام مجلس الوحدة الاقتصادية العربية الملتقى الدولي الرابع عشر للأسمدة بكلمة أكد فيها على اعتزازه بهذا الجمع الكريم وهذه النخبة المتميزة من رجال الصناعة والعلمين بصناعة الأسمدة وخاماتها في الدول العربية ومن غطت أنحاء العالم في هذا الملتقى السنوي الذي ينظمه واحد من أهم الاتحادات العربية العاملة في نطاق مجلس الوحدة الاقتصادية العربية الذي يفخر بنشاطاته ويعتز بإنجازاته ويديم مسيرته خاصة أن انعقاد هذا الملتقى الهام يأتي مع مطلع عام 2008، الذي تلوح معه مؤشرات إيجابية تدعو إلى التفاؤل بأن يكون هذا العام هو عام الاقتصاد العربي، نأمل أن تتحقق خلاله إنجازات حقيقية نحو التكامل الاقتصادي العربي، وأن يحمل الخير لبلادنا العربية. مشيراً إلى أن العالم الجديد يحمل عدداً من المؤشرات التي تدعو للتفاؤل وأولها أن الخطاب السياسي العربي يعكس موقفاً عربياً أكثر إيجابية فيما يتعلق بالمصالح الاقتصادية وأرساء المصالح الاقتصادية المشتركة حيث يؤكد كافة القادة العرب في كل مناسبة على الدعوة للإسراع في إقامة السوق العربية المشتركة والتكامل الاقتصادي العربي باعتبار ذلك الوسيلة الوحيدة لتحقيق التنمية الشاملة لكافة البلاد العربية، ولواجهة المشكلات والتحديات الداخلية والخارجية التي تعاني منها اقتصاديات البلاد العربية وفي مقدمتها مشكلة الفقر والبطالة والأمن الغذائي وتراجع معدلات التنمية وانخفاض مستوى دخل الفرد. أشار معالي أمين عام مجلس الوحدة الاقتصادية العربية إلى أن من المؤشرات الإيجابية إجراءات الإصلاح الاقتصادي التي تمت في معظم الدول العربية والاتجاه نحو سياسة السوق الحر والانفتاح علي الاقتصاد العالمي بالإضافة إلى اتباع سياسات واتخاذ إجراءات من شأنها تشجيع الاستثمار المحلي والعربي والدولي مما يجعل المناخ العربي أكثر جذباً للاستثمار. بعد فترة طويلة كانت فيها المنطقة العربية منطقة طاردة للاستثمار. مضيفاً أن المؤثر الإيجابي الهام، والداعي إلى التفاؤل والبناء عليه هو الانتهاء من مراحل التحرير



## أعوو لرياب هناعمة لاسمدة الى الزيزيه من

### التكامل في البعموه على المستويين العربي والعالمي

### رفعة لاقتصادنا وتعزيزنا للأمن الغذائي العالمي



التي المهندس/ خليفة السويدي رئيس الاتحاد كلمته مرحباً بالسادة الحضور معلناً شكره وتقديره لرعاية جمهورية مصر العربية لهذا الحدث الدولي الذي يحسك اهميته على الصعيدين الاقليمي والدولي ويزر المكانة الرفيعة التي تحتلها صناعة وتجارة الاسمدة العربية على الصعيد الدولي حيث تمثل صادرات الاسمدة وخاماتها مركزاً متقدماً في تصدير الاسمدة وخاماتها الى السوق العاليه.

استعرض المهندس/ السويدي مسيرة الاتحاد العربي للاسمدة على مدى اثنا وثلاثين عاماً التي بدأت منذ عام 1975م، مطوراً آلياته وبرامجه وفق المستجدات والتحديات التي تواجه هذه الصناعة وتجارتها التي ترجمتها الخطة السنوية للاتحاد واضعاً في اعتباره كل للتغيرات الدولية ملتصقاً بالاحتياجات المطلوبة لتعزيز صناعة الاسمدة العربية بالتشاور مع خبرائه والعاملين من الشركات أعضاء الاتحاد بغرض رفع الكفاءة وتحسين الأداء والتعرف بكل ما هو جديد في صناعة الاسمدة وتوفير المعلومات والبيانات وتبادل الخبرات ما بين اعضاءه.

كما أثار في كلمته إلى تبنى الاتحاد العربي للأسمدة استراتيجية ورؤية تعتمد أساساً على ضرورة تنشيط وتفعيل دوره ارتكازاً على مكانة المكتسبة على الصعيد الاقليمي والدولي وعامياً مع الجهود الدولية الرامية إلى التنمية المستدامة للدول النامية ورفع قدرتها لمواجهة الضغوط والمستجدات على الساحة الدولية من ارتفاع أسعار الطاقة والتحول إلى إنتاج الطاقة البديلة مثل الوقود الحيوي من خلال توظيف المنتجات الزراعية مثل القمح والذرة والسكر والزيوت النباتية لإنتاج الألبانول والبيوديزل وانعكاس ذلك على التنمية الزراعية وبالتالي تحقيق الأمن الغذائي للشود وذلك من خلال:

1. زيادة النشاط الإرشادي والتوعوي بحسن استخدام الاسمدة المعدية بكل أمكائها وعناصرها (الكبرى والصغرى) في اتران كامل خلال اطوار نمو النبات المختلفة لما لهذا من مردود كبير على زيادة الانتاجية الزراعية وذلك بالتكامل مع المنظمات والهيئات ومراكز البحوث الاقليمية والدولية ذات العلاقة.
2. الاهتمام بالبيئة وحمايتها في كل مراحل الاستخراج والانتاج والاستخدام خدمة المفهوم التنمية الصناعية المستدامة.
3. الاهتمام بالتنمية البشرية المستدامة من خلال ما يقدم من معارف جديدة عبر عقد للملتقيات والمؤتمرات والورش المتخصصة التي يتم فيها تبادل الخبرات وأبني عقد مؤتمراً هذا تأكيداً لهذا المفهوم.
4. توطيد الصلة المباشرة مع المنافع النهائي (الفلاح) في الملقطة العربية.
5. تعضيد العمل مع المنظمات العربية والدولية ذات العلاقة لتحقيق هذا الهدف وعلى رأسها منظمة الأغذية والزراعة FAO التابعة للأمم المتحدة، الاتحاد الدولي للاسمدة IFA، المركز الدولي الأمريكي IFDC، اتحاد البوتاس الدولي IPI، اتحاد الفوسفات الدولي IAMPPOS، المنظمة

- العربية للتنمية الزراعية
- AOAD، المركز الدولي
- لتفذية النبات IPNI، وذلك
- بعرض التفاعل مع المجهود الدولية
- الهادفة إلى تحقيق الأمن الغذائي على
- الصعيدين العربي والدولي.
6. تشجيع البحث العلمي التطبيقي من خلال
- جائزة الاتحاد السنوية التي تمنح لاجسن بحث
- تطبيقي في مجال حسن استخدام الاسمدة مع حماية
- البيئة وتحسين مواصفات الاسمدة وتكنولوجيا الإنتاج بغرض
- تقليل التكلفة النهائية للاسمدة بقيمة 5000 دولار امريكي،
- والتي سيتم الاعلان عن الفائز بها عن عام 2007 خلال هذا الحفل
- الكرمي والتي تمنح منذ عام 2003.
7. اطلاق جائزة سنوية ثانية لاجسن عمل تطبيقي في مجال السلامة
- والصحة والبيئة في المصانع العربية اعتباراً من هذا العام 2008.
8. الدفع باتجاه تشجيع التكامل الصناعي البيئي بين الدول الأعضاء في
- مجال هذه الصناعة وصولاً إلى بناء قاعدة صناعية متكاملة ورفع مستوى
- التبادل التجاري لمداخلات ومنتجات الاسمدة.
9. السعي لنقل وتوطين التكنولوجيا الصناعية ذات الصلة من خلال انشاء
- المراكز المتخصصة وذلك لامتداد اسواق العمل العربية بالكمفادات المدربة
- لمواكبة آخر المستجدات.
10. زيادة الانتاج من الاسمدة عن طريق مشاريع توسعه لسد احتياج
- السوق وتوفير الأمن الغذائي.
- وأكد معالي رئيس الاتحاد على أن مقعد للملتقى الدولي السنوي الرابع عشر
- للاسمدة للاتحاد يأتي في ظل تغيرات السوق العالمية من ازدياد الطلب على
- الاسمدة وخاماتها فعلى مدى أيامه الثلاث سيتم استعراض أهم المستجدات
- على المستوى الاقليمي والدولي في ظل التوجه إلى إنتاج الوقود الحيوي
- وأثره على زيادة الطلب على الاسمدة بكلفة اتواعها مع استعراض ميزان
- العرض والطلب في الدول المؤثرة على تجارة الاسمدة مثل الصين - الهند
- استراليا - أمريكا - أوروبا - أمريكا اللاتينية - أفريقيا هذا بالإضافة إلى
- موضوع الشحن البحري وتأثيره على أسعار الخامات والمنتجات السمادية
- المختلفة في ظل الارتفاع الحاد في أسعار الشحن تثاراً بارتفاع أسعار
- الطاقة العالمية.
- في ختام كلمته توجع معالي رئيس الاتحاد بالشكر والتقدير لكل السادة
- رؤساء الشركات المصرية لدعمهم ومساندتهم لاجاح هذه الظاهرة العالمية
- ودعا أرباب هذه الصناعة إلى المزيد من التكامل في الجهود على المستويين
- العربي والدولي رفعة لاقتصادنا وتعزيزنا للأمن الغذائي العالمي.



في السنوي الرابع عشر للأسمدة

المهندس / الموزي

## الوصول إلى التنسيق والتخطيط لإقامة المشروعات المشتركة في مجال تصنيع وتجارة الأسمدة للمواطنة

### الطلب المتوقع خلال العقود القادمة

أسعار البترول والذي تعدى 100 دولار أمريكي للبرميل، من خلال انتاج الوقود الحيوى مثل الايثانول - البيوديزل من المنتجات الزراعية المختلفة مثل الذرة - القمح - السكر - الزيوت النباتية وانعكاس ذلك على زيادة الطلب المتوقع على الأسمدة بكل أنواعها، ويظهر ذلك من خلال ما يشهده سوق الأسمدة من ارتفاع غير مسبوق في أسعار الخامات والمنتجات السامدة المختلفة، مما يتطلب منا ضرورة التنسيق والتخطيط فيما بيننا لإقامة المشروعات المشتركة في مجال تصنيع وتجارة الأسمدة لمواجهة هذا الطلب المتوقع خلال العقود القادمة، بما يعظم العائد والمردود الايجابي علينا جميعا وينظم في نفس الوقت التنافس في الأسواق المرتقبة والتي تستورد هذه الأسمدة من منطقتنا.

وأضاف المهندس/ الموزي قائلا أن تجمعنا اليوم في هذا الحفل الهام يعكس رغبتنا جميعا في تطوير هذه الصناعة الاستراتيجية الهامة لما تمثله من مدخل رئيسي لقطاع الزراعة لا غنى عنه وسيتعاطم دوره في المستقبل حيث ساهم بأكثر من 50 % في زيادة الانتاجية الزراعية في العقود الماضية وسيستمر هذا الدور في ظل التحول الجارى لإنتاج الوقود الحيوى بالإضافة إلى توجه الأساسى للمساهمة في القضاء على الفجوة الغذائية الحالية وتحقيق الأمن الغذائى المرتقب لمنطقتنا وللعالم أجمع.

وتحدث المهندس/الموزي عن صناعة الأسمدة بجمهورية مصر العربية التي تشهد تطورا كبيرا من خلال المشروعات التي تم تنفيذها خلال الاعوام الخمس الماضية بالإضافة إلى الجارى إقامتها والمشروعات المخطط إقامتها خلال السنوات الخمس القادمة. حيث تجاوز انتاج مصر خلال عام 2007 - 3 مليون طن من الأمونيا، و3.7 مليون طن من اليوريا و مليون طن من ترات الأمونيوم و2 مليون طن من صخر الفوسفات، و1.5 مليون طن من سماد السوبر فوسفات الاحادى بالإضافة إلى كميات أخرى من سماد السوبر فوسفات الثلاثى وحامض الفوسفوريك وسلفات الأمونيوم مضيفا أنه باستكمال المشروعات الجارى ترميمها والمشروعات تحت الدراسة سوف يكون من المنتظر تضاعف طاقات إنتاج الأمونيا واليوريا وسماد السوبر فوسفات وحمض الفوسفوريك في جمهورية مصر العربية خلال الثماني سنوات القادمة.

استهل معالي المهندس/ محمد عادل الموزي ممثل صناعة الأسمدة المصرية في الاتحاد - رئيس الشركة القابضة للصناعات الكيماوية - كلمته في افتتاح المنتدى بالتأكيد على أهمية هذا المنتدى الذى يعقد سنويا منذ عام 1995 بجمهورية مصر العربية وأصبح من أهم الأحداث على أجندة الأسمدة العالمية التي يحرص العاملون في مجال صناعيتها وتجارتها على حضوره نظرا لما تتمتع به هذه الصناعة من مكانة متميزة على الصعيد العلمى ويتجلى ذلك في حضور أكثر من 600 مشارك من كل انحاء العالم، مشيرا إلى أن صناعة الأسمدة العربية قد نبأت مكانة متميزة على الصعيدين الاقليمى والدولى وذلك من خلال ما تملكه من طاقات انتاجية تساهم أحدث ما فى العصر من تكنولوجيا وكوادر بشرية مدربة نحرص جميعا على تنميتها حيث أنها الركيزة التي نبنى عليها آمالنا للرفى بهذه الصناعة المباركة. وأشار معالي المهندس/ الموزي في كلمته إلى التغيرات الاقتصادية الكبيرة التي يشهدها العالم اليوم بالإضافة إلى توجهات الدول الكبرى مثل الولايات المتحدة وأوروبا واليابان وأستراليا والبرازيل لتتوسع مصادر الطاقة البديلة لديها نظرا للارتفاع غير المسبوق فى





## التوفير الغذاء في دول الشرق العربي دور المستهلك الواعي، والمستهلك الواعي الاستثمار في الزراعة

الاكفاء الذاتي من السلع  
الاساسية :

نسب الاكتفاء الذاتي %	السلعة
56	الحبوب
87	اللحوم الحمراء
75	اللحوم البيضاء
70	الالبان
31	الزيوت النباتية
35	السكر

واستعرض معالي الأمين العام النسب المشار إليها التي تؤكد بان على دول هذا الاقليم عمل الكثير من الجهد في تنمية القطاع الزراعي والحيواني لتقليل الفجوة الغذائية وأن تطوير القطاع الزراعي العربي بات يشكل ضرورة لكون حاضره ومستقبل الامن الغذائي العربي يرتبطان بواقع ومستقبل الزراعة باعتبار الاقليم وحده اقتصادية متكاملة.

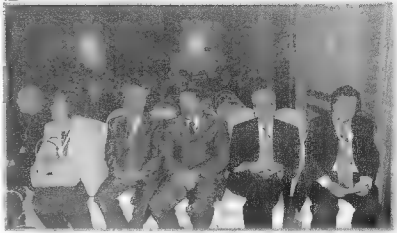
وأوضح في كلمته أن مقومات الاقليم من موارد زراعية متاحة متمثلة بالرفعة الزراعيه وكميات الأمطار فانها تؤهله لتوفير الاحتياجات الغذائية المطلوبة حيث تقدر المساحة القابلة للزراعة بنحو 198 مليون هكتار، المستغل منها في الزراعة نحو 69 مليون هكتار ويقدر متوسط الهطول المطري في الوطن العربي بنحو 2285 مليار متر مكعب في

ألقي معالي الدكتور شفيق الأشقر - أمين عام الاتحاد كلمة في افتتاح الملتقى حيث أكد على أن انعقاد الملتقى هذا العام في ظل التحولات الاقتصادية العالمية يعكس اهتمامنا وحرصنا على مواجهة هذه التحديات ذات الانعكاسات المباشرة على واقع الامن الغذائي وتوفير الطاقة اللازمة لاستدامة النمو المنشود في كل القطاعات وعلى رأسها قطاع صناعة الاسمدة لارتباطه الوثيق بصناعة الغذاء والامن الغذائي العالمي. مشيراً إلى أن توفير الغذاء حق من حقوق البشرية دون استثناء او تمييز، وأن عدم الإنفاذ به يعد انتهاكاً لكرامة الانسان وإن مايشهده العالم من جوع وفقر لما يقارب 854 مليون انسان على الرغم من وفرة وفائض في الغذاء يعد تقصيراً في حق الانسانية جمعاء. موضحاً ان الجوع ليس قدراً لا يمكن الإفلات منه، ففي الامكان محاربه من خلال السياسات الحكيمه للبلدان الأكثر تقدماً وبالتعاون البناء والصداق مع حكومات البلدان النامية التي من المفترض ان تجعل من الامن الغذائي احدى اولوياتها في التنمية الاقتصادية والاجتماعية.

وأضاف الدكتور الأشقر أن تحقيق الامن الغذائي العربي على الصعيد الاقليمي مفهوماً الواسع المتمثل في توفير السلع الغذائية الرئيسية ويمكن المواطن العربي من الحصول عليها بأسعار مقبولة مع مراعاة نوعية وسلامة الغذاء من خلال استنهاض امكانات هذا الاقليم الزراعيه وتكامل موارده المادية والبشرية بشكل هادف استراتيجي و متماشيا مع الجهود الدولية المبذولة لتقليل عدد الجياع بالعالم إلى ما يقارب النصف بحلول عام 2015.

هذا ويبين الجدول التالي واقع الامن الغذائي العربي كما تبينه نسب





الغذاء ام الوقود ايهما يحل في المرتبة الاولى؟؟؟  
ثم استعرض الدكتور الأشقر موضوع الوقود الحيوي (Bio.Fuels) الذي برز في الاونة الاخيرة كمصدر طاقة واعد يتكامل مع ما هو متاح من مصادر طاقة اخرى متاحة حيث من المستهدف أن يلعب الوقود الحيوي دورا متعاظما في مزيج الطاقة العالمي خلال السنوات اللاحقة فمن المتوقع بحلول عام 2030 أن يشارك بما نسبته 20% في حين يصل إلى حوالي 8 ملايين طن حاليا. هذا وفي ضوء التوجه الدولي لزيادة انتاج الوقود الحيوي وتوجه بلدان مثل الولايات المتحدة الامريكية، روسيا، البرازيل وغيرها فانه من المتوقع ان ينمو الطلب على الاسمدة (N.P.K)، بمعدل قد يتجاوز4% عن الطلب العالمي الحالي والذي يبلغ 164 مليون طن خلال عام 2007/2006 وسيصل إلى:

171 مليون طن	خلال دورة 2008/2007
176 مليون طن	خلال دورة 2009/2008
205 مليون طن	بحلول عام 2016

أي ما يقارب 40 مليون طن زيادة عن معدلات الطلب الحالية كل ذلك نتيجة مباشرة لتوجهه العالمي لاتاج المزيد والمزيد من المحاصيل الزراعية اللازمة للغذاء والداخله في صناعة الوقود الحيوي. مشيرا إلى أن ما تقدم يسوق بشكل طبيعي إلى بروز طاقات انتاجية اضافية لمواجهة الطلب المتنامي سنويا وبحسن الدول التي تتوفر لها الخامات على الدفع بهذا الاتجاه. وشدد معالي أمين عام الاتحاد على أن انعقاد هذا للملتقى في ظل ظروف دولية حاكمه وتوجهات تعزيز الامن الغذائي بالاستثمار في البنية التحتية التي تستخدم القطاع الزراعي وتظافر الجهود لرفع الوعي باستخدام الاسمدة المعدنية كضرورة حتمية لاغنى عنها لزيادة الانتاجية الزراعية لوحدة المساحة، مع استنباط السلالات عالية الانتاج حتى يمكننا مجاراة ما يحدث في العالم وتحقيق وفرة بالانتاج الزراعي والغذاء.

اما على صعيد دعم الثورة الخضراء في افريقيا أكد الدكتور الأشقر أن الاتحاد العربي للاسمدة يترك تماما أهمية السوق الافريقي حيث قرر حينه التواجد ودعم مؤتمر قمة افريقيا بنيجيريا عام 2006 وتبنى توصيات هذا المؤتمر الهام الذي رفع شعار الثورة الخضراء لافريقيا متمشيا مع جهود كل المنظمات الدولية ذات الاختصاص والسعي للمتابعة والمشاركة في الاجتماعات واللقاءات لوضع آلية عملية لتحقيق هذا الهدف وزيادة قدرة هذه الدول على التنمية المستدامة في قطاع الزراعة مع ما مثل السوق الافريقي من بعد استراتيجي وجغرافي لصناعة وتجارة الاسمدة العربية .

وعن الشحن والنقل البحري أكّاد اهم عوامل التأثير على تجارة الاسمدة وخاماتها افاد الدكتور الأشقر أنه شهد في الفترة الاخيره ارتفاع كبير جدا بأسعار نولون الشحن البحري وبشكل غير مسبوق يتجاوز كل التوقعات وقد يكون مرضحا للتصاعد ايضا لارتفاع أسعار الوقود في العالم وارتفاع معادن تصنيع السفن الناقلة بانواعها الحديد، الفولاذ وغيرها.

السنة والمخزون الجوفي من المياه العذبة بحوالى 7734 مليار متر مكعب في حين ان اجمالي للوارد المائية المستعملة في الزراعة حوالى 169 مليار متر مكعب. وعليه فان ذلك لاشك يقتضى جهودا مركزة ووضع سياسات مائه ارشاده قادرة على الحفاظ والاستفاده من كميات المياه المتاحة وتوظيفها بشكل علمي لزيادة الرقعة الزراعية وتظيم الاستفادة من المساحات الزراعية المتاحة واستخدام المخصبات بانواعها بشكل يعظم المردود الزراعي في الاتجاه الاقنى والرأسى ويقود إلى تنمية ونمو اقتصادي ملموس.

وعن قدرة القطاع الزراعي الاقليمي في النهوض أثار الدكتور الأشقر إلى بعض المحددات التي لا يزال يعاني منها:

- عدم كفاية التشريعات الجاذبه في مجال الزراعة: فلا زالت التشريعات الجاذبه للاستثمار في مجال الزراعة دون طموح الكثير من المستثمرين وتحتاج إلى الكثير من التحديث وخاصة في البلدان التي تتوفر لديها مساحات كبيرة ومصادر مياه جيدة وعلى راسها كلا من السودان ومصر.

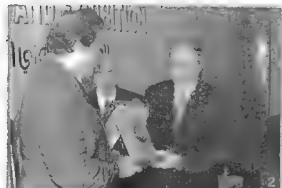
- ضعف استخدام التقنيات الزراعية الحديثه ويزد ذلك من خلال الاتجاهية المتدنية للجبوب في الوطن العربى حيث تبلغ فى المتوسط 1.7 طن/هكتار مقارنة بحوالى 5.6 طن/هكتارفى الولايات المتحدة.

- تدني كفاية البنية التحتية مثل الطرق - النقل - التخزين.... واتسكاساتها السلبية والمباشرة على المنظومة الزراعية والتسويقية.

- محدودية القيمة المضافة للنتاج : تعد معظم المنتجات الزراعية مواد خام اساسيه لرغد حلقة التصنيع الزراعى او استخدامها فى صناعات غذائية تحويليه او صناعات تحويليه اخرى مثل الوقود الحيوى والذي يمثل تحديا كبيرا يواجهه حاليا ومستقبلا البلدان النامية لما يمثله استخدام الحبوب والزيوت النباتيه فى انتاج الوقود الحيوي مثل (الايثانول - البيوديزل )خطرا على الامن الغذائى العربى.



# المنتدى والعرضة





قام الاتحاد بتقديم درع الاتحاد للسيد الدكتور أحمد جويلى (1) الأمين العام لمجلس الوحدة الاقتصادية العربية وذلك تقديراً لدعمه ومؤازرته للاتحاد وفعالياته وأنشطته.

امتناناً واعتزافاً بجهوده البناءة خلال فترة ترأسه مجلس إدارة الاتحاد قام الاتحاد العربي للأسمدة بتكريم السيد الدكتور مهندس نزار فلاح (2) رئيس الاتحاد لدورة 2007 ومنحه درع الاتحاد، كما قام الاتحاد بمنح درع الاتحاد إلى السيد الدكتور محمد عبد الرحمن التوكيت (3) ممثل الشركات الكويتية في مجلس إدارة الاتحاد السابق.

كما قام الاتحاد بتوجيه الشكر والعرفان للشركات المصرية أعضاء الاتحاد الداعمة للملتقى بشكل خاص ولانشطة الاتحاد بشكل عام. وتعبيراً وامتناناً لذلك فقد تم تقديم درع الاتحاد لرؤساء هذه الشركات:

4- المهندس محمد عادل الموزي  
رئيس الشركة القابضة للصناعات الكيماوية - عضو مجلس إدارة الاتحاد.

5- الدكتور يحيى محمود قطب  
الرئيس والعضو المنتدب للشركة المالية والصناعية المصرية

6- المهندس علي ماهر غنيم  
الرئيس والعضو المنتدب لشركة الدلتا للأسمدة

7- الدكتور يحيى محمد عبد الله  
الرئيس والعضو المنتدب لشركة أبو قير للأسمدة

8- المهندس مصطفى كامل  
المدير العام للشركة المصرية للأسمدة

9- المهندس أسامة الجفاني  
الرئيس والعضو المنتدب لشركة الاسكندرية للأسمدة

10- الدكتور محمد عادل الدنف  
الرئيس والعضو المنتدب لشركة حلوان للأسمدة

11- المهندس يحيى مشالي  
الرئيس والعضو المنتدب لشركة الصناعات الكيماوية المصرية (كيما)

12- الدكتور حريف الجعلي  
الرئيس والعضو المنتدب لشركة أبو زعبل للأسمدة / شركة بولي سيرف للأسمدة

13- المهندس ماجد ياسين  
الرئيس والعضو المنتدب لشركة أكواترست

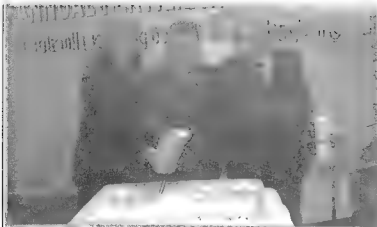
14- المهندس ناصح فرغلي  
الرئيس والعضو المنتدب لشركة النصر للتعبئة

كما تم تكريم:  
15- المهندس فيصل دودي  
رئيس اللجنة الاقتصادية خلال الفترة 2006 / 2007

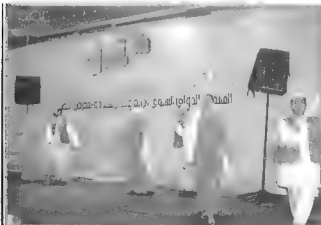
16- المهندس مصطفى كامل  
رئيس اللجنة الفنية خلال الفترة 2006 / 2007



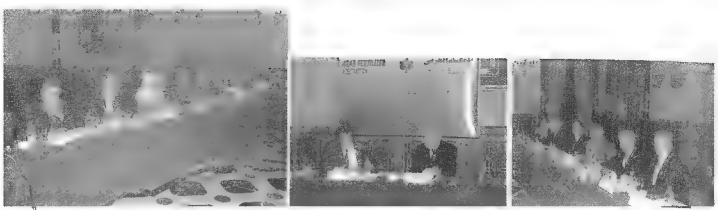
# الشركات المصرية تحتفي بالوفود المشاركة في الملتقى



قامت الشركات المصرية أعضاء الاتحاد  
بالاحتفاء بالسادة حضور الملتقى  
الدولي السنوي الرابع عشر حيث  
نظمت حفلات الغذاء والعشاء على  
شرف المشاركين وقد تضمن حفل  
العشاء خاصة فقرات من الموسيقى  
والفولكلور المصري.  
وقد أشاد المشاركون في الملتقى بكرم  
الضيافة وحسن الترحيب والاستقبال  
من الأشقاء المصريين.







حضر هذا الاجتماع كل من السادة:

- السيد محمد نجيب بنشقرن
- نائب رئيس مجلس إدارة الاتحاد
- المغرب - مجموعة المكتب الشريف للفوسفات
- المهندس محمد عادل الموزي
- عضو مصر - الشركة القابضة للصناعات الكيماوية
- السيد الهادي الكافي
- عضو تونس - شركة جبوب الفسفاط (قرانيغوس)
- الدكتور آزاد فلاح
- عضو سوريا - المؤسسة العامة للصناعات الكيماوية
- السيد هادي الشعبي
- عضو السعودية - الشركة السعودية للصناعات الأساسية (سابك)
- المهندس عبد الرحمن جواهري
- عضو البحرين - شركة الخليج لصناعة البتروكيماويات
- المهندس محمد سليم بدرخان
- عضو الأردن - شركة مناجم الفوسفات الأردنية
- المهندس علي الصفي محمد صالح
- عضو ليبيا - شركة سرت لإنتاج وتصنيع النفط والغاز
- المهندس محمد راشد الراشد
- عضو الامارات - شركة صناعات الأسمدة بالرويس
- السيد مكي سعيد
- عضو الجزائر - شركة فريال
- المهندس جهاد ناصر حجي
- عضو الكويت - شركة صناعة الكيماويات البترولية
- المهندس مهدي سالم
- ممثل عضو العراق - الشركة العامة لصناعة الأسمدة الجنوبية
- كما حضر جانب من الاجتماع كل من:
- المهندس سعيد خليفة
- رئيس لجنة السلامة والصحة المهنية والبيئة
- المهندس عبد المظفر
- رئيس اللجنة الاقتصادية
- كما حضر من الامانة العامة للاتحاد:
- المهندس محمد فتحي السيد
- الأمين العام المساعد
- السيد محمد الشاوي
- رئيس القسم المالي / الحسابات

## اجتماع مجلس الإدارة

عقد مجلس إدارة الاتحاد العربي للأسمدة اجتماعه الثمانين في مدينة القاهرة - جمهورية مصر العربية يوم الثلاثاء الموافق 05 شباط / فبراير 2008 برئاسة المهندس خليفة السويدي رئيس الاتحاد الذي استهل الاجتماع بالترحيب بالسادة الحضور، كما تقدم بالشكر والامتنان للحكومة المصرية على الدعم والمساندة التي تقدمها للإتحاد العربي للأسمدة وللملتقى الدولي السنوي الرابع عشر الذي يعقد على أرض مصر كل عام منذ العام 1995 والذي شهد مشاركة غير مسبوقه مقارنة بالملتقيات السابقة.

خلال الاجتماع تم استعراض جدول أعمال الجلسة وفيما اذا كانت هناك موضوعات مستجدة، ومن ثم اقر مجلس الإدارة جدول الاعمال على النحو التالي:-

- استعراض واستماع لتقارير اللجان المتخصصة:

اللجنة الفنية

اللجنة الاقتصادية

لجنة السلامة والصحة المهنية و البيئة

- المصادقة على فحوى محضر اجتماع الجلسة السابقة التاسعة والسبعين المعقودة في عمان بتاريخ 2007/11/13 .

- الإطلاع والمصادقة على الميزانية العمومية والحساب الختامي لأعمال السنة المالية المنتهية في 2007/12/31 .

- اجتماع الجمعية العمومية (غير العادية) الثانية والثلاثون يوم الثلاثاء الموافق 2008/2/5 .

- تعيين مراقب حسابات للسنة المالية 2008 .

- شعبون ومستجدات العضوية.

- مشروع لتحفيز استخدامات الأسمدة في السودان مشروع

مشترك ما بين AFA/IFDC .

# اجتماع الجمعية العمومية

بناء على الدعوة الموجهة من السيد رئيس مجلس إدارة الاتحاد العربي للأسمدة بتاريخ 30/12/2007 وجدول الأعمال المكون من بند واحد: طلب الموافقة على التعديلات بالنظام الأساسي للاتحاد العربي للأسمدة.  
عقدت الجمعية العمومية الاجتماع الثاني والثلاثون (غير العادي) يوم الثلاثاء الموافق 05 شباط/فبراير 2008 بمدينة القاهرة.  
رحب رئيس الجلسة المهندس | خليفة السعودي رئيس مجلس إدارة الاتحاد العربي للأسمدة بالسادة أعضاء الجمعية وطلب من أمين سر الجلسة استعراض مواد النظام الأساسي والتعديلات المقدمه من مجلس إدارة الاتحاد، وقد تم الاتفاق على التعديلات والمقررات بالإضافة إلى تعديل في عدد من البنود وصدر القرار التالي:-

قرار رقم 32/2008 :

«تصادق الجمعية العمومية بإجتماعها غير العادي على تعديل النظام الأساسي للاتحاد العربي للأسمدة وفق ما اتفق عليه بالجلسة الثانية والثلاثين يوم الثلاثاء الموافق 05 شباط/فبراير 2008، وتوصي باعتماده واعتباراً من تاريخه ووضع موضع التنفيذ».  
وقد حضر الاجتماع المذكور كل من :-

أولاً: الشركات صاحبة حق التصويت:-

السيد   محمد نجيب بنشقرون (نائب رئيس المجلس / ممثل القطر) مجموعة المكتب الشريف للفوسفات	- المغرب	المهندس   محمد راشد الراشد (عضو للمجلس / ممثل القطر) شركة صناعات الأسمدة بالرويس (فرتال) - الامارات
المهندس   محمد عادل الموزي (عضو المجلس / ممثل القطر) الشركة القابضة للصناعات الكيماوية	- مصر	المهندس   علي الصغير محمد صالح (عضو المجلس / ممثل القطر) شركة سرت لإنتاج وتصنيع النفط والغاز - ليبيا
الدكتور   فزار فلوخ (عضو المجلس / ممثل القطر) المؤسسة العامة للصناعات الكيماوية	- سوريا	السيد   سعيد مكي (عضو المجلس / ممثل القطر) شركة أسمدة الجزائر فرتال - الجزائر
السيد   الهذلي الكافي (عضو المجلس / ممثل القطر) شركة حبوب الفوسفات	- تونس	المهندس   فهد الشحي (عضو المجلس / ممثل القطر) الشركة السعودية للصناعات الأساسية-سابك - السعودية
السيد   مهدي سالم (ممثل عضو المجلس) الشركة العامة لصناعة للأسمدة الجنوبية	- العراق	الدكتور   شفيق الأنقر الأمانة العامة/ أمين سر الجلسة - مصر
السيد   محمد سليم يدرخان (عضو المجلس / ممثل القطر) شركة مناجم الفوسفات الأردنية	- الاردن	ثانياً: الشركات المدعوة بصفة مراقب :- السيد   محمد عادل الدنف رئيس مجلس الإدارة والعضو المنتدب شركة حلوان للأسمدة - مصر
المهندس   جهاد ناصر الخجي (عضو المجلس / ممثل القطر) شركة صناعة الكيماويات البترولية	- الكويت	Mr. Hidenori FUKUI المدير العام شركة الاسمدة اليابانية الاردنية - الاردن
المهندس   عبد الرحمن جوايري (عضو المجلس / ممثل القطر) شركة الخليج لصناعة البتروكيماويات	- البحرين	المهندس   اخمدي خوي المدير العام شركة مناجم الفوسفات الجزائر اثرية - الجزائر

المهندس | ميلود لوجيشي  
الرئيس المدير العام  
شركة أسمدال القابضة

- الجزائر

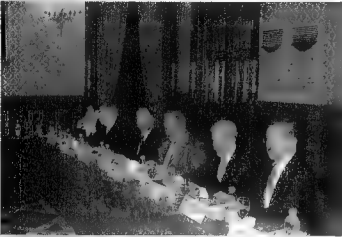


المهندس | أصامة الجنايني  
رئيس مجلس الإدارة والعضو المنتدب  
شركة الاسكندرية للأسمدة - أبوقير

- مصر

المهندس | علي ماهر غنيم  
رئيس مجلس الإدارة والعضو المنتدب  
شركة الدلتا للأسمدة والصناعات الكيماوية

- مصر



المهندس | رزق محمد السيد عمر  
رئيس مجلس الإدارة والعضو المنتدب  
شركة النصر للأسمدة والصناعات الكيماوية

- مصر

الكيميائي | محمد عبد الله  
رئيس مجلس الإدارة والعضو المنتدب  
شركة أبوقير لأسمدة والصناعات الكيماوية

- مصر

الكيميائي | يحيى محمود قطب  
رئيس مجلس الإدارة والعضو المنتدب  
الشركة المالية والصناعية المصرية

- مصر



المهندس | مصطفى كامل المدير العام  
الشركة المصرية للأسمدة

- مصر

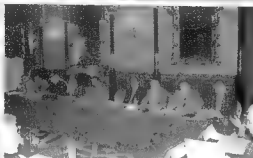
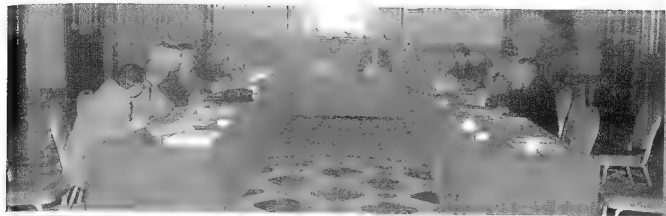
المهندس | يحيى مشالي  
رئيس مجلس الإدارة والعضو المنتدب  
شركة الصناعات الكيماوية المصرية (كيما)

- مصر

المهندس | راجح الخالد  
المدير العام  
الشركة العامة للأسمدة

- سوريا

كما حضر من الامانة العامة للاتحاد:  
المهندس | محمد فتحي السيد  
الأمين العام للمساعد  
السيد | محمد الشاوي  
رئيس القسم المالي / الحسابات

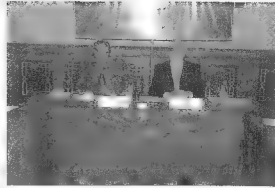
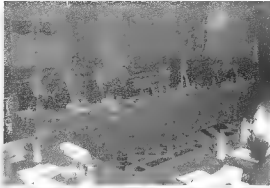


## اجتماع اللجنة الاقتصادية

عقدت اللجنة الاقتصادية للاتحاد اجتماعها الواحد والاربعون برئاسة المهندس / عايد المطري مدير تسويق اليوريا - رئيس اللجنة الاقتصادية والدكتور / شفيق الأشقر - الأمين العام. بوشر ببحث جدول اعمال الجلسة على النحو التالي:

- تحديث المشروعات المستقبلية بالشركات الاعضاء.
- مذكرة حول الملتقى الدولي السنوي الرابع عشر للاسمدة.
- التحضيرات الادارية والفنية لورشة: Strategic Thinking, Planning and Management Control - 8/6 مايو 2008.
- التقرير الاحصائي السنوي للاسمدة لعام 2007.
- تطوير مركز المعلومات وموقع الاتحاد (المرحلة الثانية).
- التعاون مع الاتحاد الدولي للاسمدة ((IFA) لعقد يوم عمل : النقل الآمن للامونيا.
- كما تم مناقشة المقترح المقدم من مركز تطوير الاسمدة الدولي IFDC الذي يوضح سوق أفريقيا للأسمدة وأثره على صناعة الاسمدة العربية وضرورة بقاء الاتحاد على مسافة قريبة من هذا السوق وامكانية تقديم الاتحاد الدعم المالي للمساهمة في هذا المشروع.
- حضر الاجتماع كل من السادة/

المهندس   جمال ابو سالم	الدكتور   غزار فلوخ
الشركة اليابانية الاردنية للاسمدة - الاردن	المؤسسة العامة للصناعات الكيماوية - سوريا
السيد   جعفر سالم	السيد   محمد نجيب بدشقرقون
شركة البوتاس العربية - الاردن	مجموعة للمكب الشريف للفوسفات - المغرب
السيد   ابراهيم احمد بويردعة	السيد   مهدي سالم عبد الحسن
شركة سرت لإنتاج وتصنيع النفط والغاز - ليبيا	الشركة العامة للاسمدة - العراق
المهندس   يسرى الحياض	السيد   ميلود نوحمشي
شركة ابوقير للاسمدة - مصر	شركة اسمدال - الجزائر
السيد   عادل عطية	السيد   صلاح راشد
الشركة المصرية للاسمدة - مصر	شركة صناعة الكيماويات البترولية - الكويت
السيد   منير الغريب	السيد   يوسف الكواري
شركة البلتا للاسمدة - مصر	شركة قطر للاسمدة الكيماوية (قافكو) - قطر
السيد   نبيل ابوشنب	المهندس   سعد الدليله
الشركة المالية والصناعية - مصر	الشركة السعودية للصناعات الاساسية (سابك) - السعودية
ياسر خوي	السيد   جهاد فقي
الامانة العامة للاتحاد	شركة الخليج لصناعة البتروكيماويات - البحرين



## اجتماع اللجنة الفنية

عقدت اللجنة الفنية للاتحاد اجتماعها الواحد والأربعون يوم الاثنين الموافق 2008/2/4 بالقاهرة، برئاسة المهندس/ خليفة محمد خليفة - رئيس اللجنة الفنية والدكتور/ شفيق الأشقر - الأمين العام للاتحاد العربي للأسمدة.

قامت اللجنة باستعراض جدول الأعمال حيث تم مناقشة المواضيع الآتية :

التخطيط لورشة العمل الفنية لعام 2008 « Enhancement of Production Efficiency »

التخطيط لمؤتمر الدولي الفني الواحد والعشرون : 2008/11/12-10 - جدة - المملكة العربية السعودية

دراسة Benchmarking للشركات الأعضاء لعام 2008

قواعد البيانات في مركز المعلومات بالأمانة العامة

وقد حضر الاجتماع كل من السادة :

الدكتور | نزار فلوح

المؤسسة العامة للصناعات الكيماوية - سوريا

المهندس | جمال عمرو

شركة البوتاس العربية - الاردن

المهندس | جهيل دودين

شركة مناجم الفوسفات الاردنية - الاردن

السيد | هادي ديت - شركة فريال - الجزائر

المهندس | يوسف عبد الله

شركة الخليج لصناعة البتروكيماويات - البحرين

المهندس | مهدي سالم عبد الحسین

الشركة العامة لصناعة الاسمدة - المنطقة الجنوبية - العراق

المهندس | سعد الدليلة

الشركة السعودية للصناعات الأساسية (سابك) - السعودية

المهندس | خليفة الخليلي

شركة قطر للأسمدة الكيماوية - قطر

المهندس | يوسف زاهدی

مجموعة المكتب الشريف للفوسفات - المغرب

المهندس | مسعود صالح النبهان

شركة صناعة الكيماويات البترولية - الكويت

المهندس | علي ماهر غنيم

شركة النلتا للأسمدة - مصر

المهندس | يحيى مشالي

شركة الصناعات الكيماوية المصرية - مصر

المهندس | صفوت الجبار

شركة ابو قير للأسمدة - مصر

المهندس | خالد السيد

شركة الاسكندرية للأسمدة - مصر

المهندس | محمد عتاني محمود

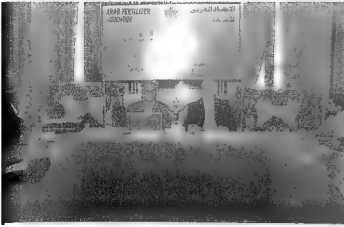
الشركة المالية والصناعية - مصر

Mr. V. B. Guar

الشركة المانية الهندية للسما - سلطنة عمان

المهندس | محمد محمود علي

رئيس قسم الدراسات - الامانة العامة للاتحاد



## اجتماع لجنة السلامة والصحة المهنية

عقدت لجنة السلامة والصحة المهنية والبيئة اجتماعها الثالث يوم 2008/2/4 برئاسة المهندس / سعيد خليفة - رئيس اللجنة والدكتور / شفيق الأشقر - الأمين العام للاتحاد العربي للأسمدة. خلال الاجتماع تم استعراض ومناقشة الموضوعات التالية:

- إعداد معايير جائزة الاتحاد العربي للأسمدة للسلامة والصحة المهنية والبيئة. - إعداد دليل استرشادي لصناعة الأسمدة والبيئة.
- مقترح عقد ندوة حول السلامة والصحة المهنية والبيئة. - المواصفة الأوروبية الخاصة بتسجيل وتداول الكيماويات REACH

وقد حضر الاجتماع كل من السادة/

المهندس | سامي عمارنة  
شركة البوتاس العربية - الأردن  
المهندس | خالد العلواني  
شركة سابك - السعودية  
المهندس | وليد الماس  
شركة فريتيل - الإمارات العربية المتحدة  
المهندس | محمد فتحي السيد  
الإمانة العامة للاتحاد  
المهندس | محمد عمود علي  
الإمانة العامة للاتحاد

المهندس | يامر عبد الرحيم  
شركة الخليج لصناعة البتروكيماويات - البحرين  
المهندس | مجمل عمو الشعري  
شركة صناعة الكيماويات البترولية - الكويت  
المهندس | صالح المري  
شركة قطر للأسمدة الكيماوية - قطر  
المهندس | مصطفى هنتات  
مجموعة المكتب الشريف للفوسفاط - المغرب  
السيد | الهادي بن سالم  
المجمع الكيميائي التونسي - تونس  
المهندس | خالد أبو عخطوة  
شركة سرت لانتاج وتصنيع النفط والغاز - ليبيا

# اجتماع المنداء التجاريون / الشحن

عقد الاجتماع السادس للسادة المنداء التجاريون/الشحن يوم الخميس الموافق 2008/2/7 بحضور ممثلي الشركات العربية المنتجة للاسمدة والعاملين بمجال التسويق والشحن والادارات التجارية .

تم عقد الاجتماع على جزئين :

الجزء الاول:

جلسة نقاشية حول موضوع الشحن البحري:

Pannel Session on Global Maritime Outlook

بمشاركة ممثلي الجهات الدولية التالية:

- Mr. Jarle Hammer, Shipping Adviser, Hammer Maritime Strategies - Norway
- Dr. Henriette Van Niekerk, Senior Freight Analyst, Dry Bulk Division, Clarkson's - UK
- Mr. K. Parthasarathi, Shipping Manager OMIFCO - Oman
- Capt. Ranjan Mookherjee, Operations Manager, Int'l Tanker Management - Dubai
- Luc Maene, Director General, IFA - France

قام المتحدثون بالتقاء الضوء على اهم التغيرات الحالية لاسواق الشحن واثراء على اسعار شحن الاسمدة والتوقعات المستقبلية

الجزء الثاني: (خاص بالسادة ممثلي الشركات الاعضاء)

تم عقد هذا الاجتماع برئاسة السيد المهندس/ عايد المطري- مدير مبيعات البورينا (شركة سابك) ورئيس اللجنة الاقتصادية والسيد /جهد تقي- مدير التسويق (شركة الخليج لصناعة البتروكيماويات ) حيث تم استعراض النقاط التالية:

- المصادقة على محضر الاجتماع الخامس للسادة المنداء التجاريين والتسويق والمشتريات.

- مناقشة المقترح الخاص بالتعاون ما بين الاتحاد و IFA لاقامة ورشة لمدة يومين في

بجاءل الشحن الامن للامونيا بالاسكندرية خلال شهر حزيران/ يونيو 2008

حضر الاجتماع كل من السادة/

المهندس | عبدالله الصهيل

مدير مبيعات الامونيا/ شركة سابك - السعودية

المهندس | جمال ابو سالم

نائب المدير العام/ شركة الاسمدة اليابانية الاردنية - الاردن

السيد | جعفر سالم

نائب المدير العام للشؤون التسويقية-شركة البوتاس العربية - الاردن

السيد | بشار ملاحة

مدير عمليات التسويق/شركة البوتاس العربية - الاردن

السيد | رامي عثمانة

مدير الشحن/شركة البوتاس العربية - الاردن

السيد | احمد محمود

مراقب التسويق/شركة الخليج لصناعة البتروكيماويات - البحرين

السيد | يوسف كمال

مراقب الشحن بالوكالة/شركة الخليج لصناعة البتروكيماويات - البحرين

**Mr. K.Satyanarayana Rao**

Chief Operating Officer/Indo Jordan

المهندس | اساني كوشان

مدير المصنع/ الهندية الاردنية - الاردن

السيد | محمد خوات

شركة حبوب السفطاط - تونس

المهندس | حسن عبد الحميد محمد

رئيس القطاع التجاري/شركة النصر للاسمدة - مصر

السيد | احمد شوقي زكي

رئيس قطاعات التسويق والمبيعات/ الدلتا للاسمدة - مصر

السيد | علي محمد احمد لاسم

رئيس قطاعات التسويق/ ابوقير للاسمدة

السيد | محمد عوض مصبح

السيد | محمد عبد الفتاح مويذات

نائب رئيس قطاعات التسويق - ابوقير للاسمدة

السيدة | مها عبد السلام

السيد | محمد حسني

السيد | سليمان عمود الفقي

الشركة المالية والصناعية المصرية

المهندس | محمد فتحي السيد

الامين العام للمساعد - الأمانة العامة للاتحاد

السيد | ياسر خوي

رئيس القسم الاقتصادي - الأمانة العامة للاتحاد

# ندوة علمية حول : مخاطر سوسة النخيل الحمراء

25-26 آذار / مارس - الرياض - المملكة العربية السعودية

خصوصا بالمملكة العربية السعودية ،دولة الامارات العربية المتحدة والعراق وجمهورية مصر العربية وتونس والمغرب والسودان، لما يمثله من تأثير سلبي على انتاج التمور بكافة انواعها وبالتالي اقتصاديات هذه الدول المعتمدة بشكل كبير عليها لفوائدها المتعددة من تنوع استخدام منتجات النخيل في الصناعات المختلفة بالإضافة الى قدرتها الهائلة على التعايش في هذه المناطق الصحراوية لآلاف السنين.

## أهداف الورشة :

1 - الوقوف على الوضع الحالي لانتشار حشرة سوسة النخيل الحمراء في المنطقة العربية والخليج بشكل خاص والجهود المبذولة لمنع انتشارها .

2 - تبادل التجارب والخبرات في مجال مكافحة هذه الآفات والتركيز على المكافحة الحيوية .

تحت رعاية الشركة السعودية للصناعات الاساسية (سابك) وبالتنسيق مع الاتحاد العربي للاسمدة تم عقد ورشة عمل « مخاطر سوسة النخيل الحمراء» خلال الفترة 25 - 26 آذار / مارس بحضور ما يقرب من 100 مشارك من الخبراء في نقل المكافحة الحيوية كمتخصص اساسي في الإدارة المتكاملة لمكافحة سوسة النخيل الحمراء في المملكة العربية السعودية ونخبة من الباحثون والخبراء السعوديون الذين يحملون في مجال وقاية النبات ومشروعات مكافحة الآفات وخبراء وباحثون من الدول العربية: مصر، تونس، المغرب، مختصون في مجال امراض النخيل ومكافحتها بالإضافة إلى أصحاب مزارع النخيل في المملكة العربية السعودية من القطاع الخاص والشركات الزراعية.

من الجدير بالذكر أن نخيل التمر في العالم يقدر عدده بحوالى 100 مليون منها 62 مليون مزروعة بالمنطقة العربية. وتعتبر حشرة سوسة النخيل الحمراء من أخطر الآفات المدمرة لشجرة نخيل التمر في المنطقة العربية ، حيث تمتلك المنطقة العربية ثروة هائلة من اشجار النخيل







3 - إيجاد آلية عربية فاعلة للتنسيق والتعاون في مجال مكافحة هذه الآفة على المستوى الإقليمي .

4 - الوقوف على الآثار الاقتصادية لانتشار سوسة النخيل الحمراء في دول الخليج وبعض دول المنطقة العربية (من واقع نتائج مشروع المنظمة العربية للتنمية الزراعية) .



#### برنامج الورشة:

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اليوم الأول

جلسة العمل الأولى: الوقوف على الوضع الراهن لانتشار  
حشرة سوسة النخيل الحمراء في المنطقة العربية

رئيس الجلسة : الاخصائي الزراعي | فهد بن محمد آل سافان

مدير عام إدارة وقاية المزارع وبوزارة الزراعة

- الوضع الراهن لحشرة سوسة النخيل الحمراء في المنطقة العربية

د. جمال حجازي

- التعرف بمشروع المنظمة : نقل المكافحة الحيوية كعنصر أساسي في

الإدارة المتكاملة للآفات لمكافحة سوسة النخيل الحمراء (المرحلة

الثالثة)

د. صافي العوض

- منجزات مشروع المكافحة الحيوية لسوسة النخيل الحمراء بالملكة

العربية السعودية

م. زاهي | عمر عيسى آلها

- طرق المكافحة لحشرة سوسة النخيل الحمراء إيجابياتها وسلبياتها

د. محمود السعيد





- نتائج التطبيقات الحقلية الموسعة باستخدام الفطريات الممرضة للحشرات ضد حشرة سوسة النخيل الحمراء  
د. جمال حجازي
- نتائج التطبيقات الحقلية الموسعة باستخدام النيماتودا الممرضة للحشرات.  
د. سامي العوض
- النجاحات التي حققها المشروع في مجال الحد من انتشار الآفة.  
د. سامي العوض
- فرص تبني الإنتاج التجاري للعلقات البيولوجية التي خرج بها المشروع.  
د. سامي العوض
- آليات التنسيق والتعاون العربي في مكافحة السوسة على المستوى الإقليمي على المدى البعيد.  
د. جمال حجازي

جلسة العمل الرابعة: أمراض النخيل بمنطقة المغرب العربي  
رئيس الجلسة : الدكتور / خالف المهيد

مدير عام إدارة العلاقات العامة والعلام الزراعي  
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- أمراض النخيل المستجدة بالواحات التونسية  
د. علي زوبه
- المشروع الإقليمي البحثي للكشف المبكر عن مرض البيوض على النخيل وتطوير تقانات مكافحته: إهدافه وأهم إنجازاته والوضع الراهن وخطورته وطرق مكافحته بالوطن العربي  
د. سميرة مولاي الحسن

جلسة العمل الثانية:

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- المكافحة الحيوية باستخدام النيماتودا الممرضة للحشرات  
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- المكافحة الحيوية باستخدام الفطريات الممرضة للحشرات  
د. جمال حجازي
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د. محمود سعيد
- استخدام المصائد الفرمونية الكبيرة ومونية في مكافحة حشرة سوسة النخيل الحمراء  
د. سامي العوض

اليوم الثاني

جلسة العمل الثالثة:

استراتيجيات مكافحة المتكاملة لسوسة النخيل الحمراء  
رئيس الجلسة : الدكتور / بندر بن محمد العبيدي  
مدير عام إدارة الإرشاد بوزارة الزراعة



من اليمين إلى اليسار : د. جمال حجازي (مصر) د. علي زوبه (تونس)  
د. مولاي الحسن (المغرب) د. هقيق الاشقر الأمين العام للاتحاد السيد/ عمرو  
المهني (السعودية) د. سامي العوض الامارات العربية د. محمود سعيد (مصر)



# التفكير الاستراتيجي التخطيط وحراصة التنفيذ

٨-٦ آذار، مايو 2008 فندق مريديان - دمشق

يعقد الاتحاد العربي للاسمدة ورشة العمل الاقتصادية: "التفكير الاستراتيجي، التخطيط ومراقبة التنفيذ" خلال المدة من 6-8/5/2008 بفندق مريديان دمشق - سوريا، وبالتعاون والتنسيق مع الشركات السورية اعضاء الاتحاد.

ففي ظل ما تشهده المنطقة العربية من تسارع في السعي لتحسين آليات التنمية الاقتصادية والاجتماعية وتحسين المناخ العام للعمل، وتعزيز ادواته على صعيد الهيئات والمنظمات والشركات والحكومات بدون استثناء فقد حاض سعى الاتحاد العربي للاسمدة وبالتعاون مع احد بيوت الخبرة العربية والاقليمية: المنظمة العربية للتنمية الادارية لعقد هذه الورشة المتخصصة للعاملين في شركات صناعة الاسمدة بالوطن العربي لتعزيز قدراتهم والارتقاء بادائهم وتزويدهم بالمهارات العلمية الحديثة في الادارة والتخطيط الاستراتيجي للاعمال وصولاً بالمؤسسات الى تحقيق الاهداف المستهدفة

يتضمن برنامج الورشة في ايامه الثلاثة عدد من الموضوعات الرئيسية التي تخدم الهدف العام من الورشة وعدد من التمارين التطبيقية للمساعدة التي من شأنها تعريف وتدريب المشاركين وكيفية الوصول الى الخيارات السليمة في التخطيط والتنفيذ .

تستهدف هذه الورشة مشاركة :

- المدراء العاملون في مجال عمليات التسويق والمبيعات والمشتريات
- المديرون التجاريون
- العاملون في الدوائر المالية ذات العلاقة
- المدراء الاداريون، التخطيط، اتخاذ القرار
- مدراء العمليات والصيانة
- مدراء العلاقات العامة



في إطار سياسة شركة الخليج لصناعة البتروكيماويات لتولي البحرينيين المناصب القيادية فيها، فقد أعلنت الشركة عن ترقية وتقلات كبيرة أصبحت بها تدار بقيادة بحرية خالصة. ففي هذا الصدد، صدق صاحب المعالي الشيخ عيسى بن علي آل خليفة مستشار صاحب السمو رئيس الوزراء للشئون الصناعية والتفطية رئيس مجلس إدارة الشركة على الترقية الجديدة والتي تم عوجيها تعيين المهندس يوسف عبدالله الحقوب نائباً للمدير العام للشئون الفنية خلفاً للمهندس إدوارد هورن الذي تقاعد عن العمل مؤخراً، وبهذا يكتمل طاقم الإدارة التنفيذية بالشركة ليكون بحرياً كاملاً.

كما حملت التعينات كذلك المهندس أحمد عبدالله نور الدين مديراً لعمليات المصانع والمهندس فاضل مال الله الانصاري مديراً للشئون الفنية والمهندس أحمد علوم إسماعيل مديراً للصيانة

تقدم الأمانة العامة للاتحاد بالتهنئة للمهندس يوسف عبد الله الحقوب والمهندس أحمد نور الدين متمنية لهما دوام التوفيق والنجاح.

في الصورة جلوساً من اليمين إلى اليسار :-

المهندس فاضل الأنصاري - مدير الخدمات الفنية

المهندس أحمد نور الدين - مدير عمليات المصانع

المهندس عبدالرحمن جواهري - المدير العام

المهندس يوسف عبدالله - نائب المدير العام للشؤون الفنية

المهندس أحمد علوم - مدير الصيانة

وقوفاً من اليمين إلى اليسار :-

المهندس بدر المنصوري - مراقب قسم التخطيط بالإنتاج

المهندس يوسف كمال - مراقب قسم الشحن بالإنتاج

المهندس جمال الشاوش - مراقب مصنع الليثانول بالإنتاج

المهندس نادر عبد الرحيم - مراقب قسم الفحص

السيدة / سلوى عبد الرحيم - محاسب دفع وتحصيل

عند الاتحاد الدولي للأسمدة مؤتمره الفني هذا العام بمدينة (ساو باولو) بالبرازيل في الفترة من 3/9 إلى 14/3/2008، وذلك تحت عنوان «الوقود، الغذاء والتغير المناخي والتحديات التي تواجه صناعة الاسمدة». حضر المؤتمر حوالي 180 فرداً من كافة دول معاً، وكان هناك ممثلين للدول العربية من مصر، البحرين، السعودية والمغرب. هذا، وقد ناقش المؤتمر 23 بحثاً دار أغلبها عن التطور التكنولوجي في مجال صناعات الاسمدة البترولية والفوسفاتية، مع التركيز على قضايا السلامة والصحة والبيئة والتغير المناخي.

ولقد تناولت الأبحاث قضية الغذاء مقابل الوقود؛ مع التباين الموجود حالياً في إنتاج الوقود الحيوي والذيرول. وقد أكد الباحثون أن صناعة الاسمدة تعتبر داعمة للطاقة حيث تسهم إلى حد كبير في سد الفجوة الموحدة حالياً في مجال الوقود؛ لكن لا يغفل مدى أهمية الغذاء.

حاتت التنمية المستدامة Sustainable Development القسم المشترك الأعظم لمحتوى التي قدمها المؤتمر، مع التركيز على التقليل من الأبعثات الصارة بالبيئة مثل الاكسجين البترولية وانباس أكسيد الكربون بالإضافة إلى البات تطوير التكنولوجيا المنظمة Clean Development Mechanism. كما نوشت بعض الأبحاث والدراسات الاحصائية Benchmarking بالنسبة للانبعاثات واستهلاك الطاقة من بعض مانحي رخصة التشغيل Licensors.

كما طرحت بعض الأبحاث خبرات بعض الشركات في مجال السلامة والصحة المهنية أثناء العمراة؛ وجاءت كل الأبحاث من الدول العربية خاصة البحرين والسعودية وقد لاقت استحساناً كبيراً.

ولقد ترأس السيد المهندس/ عبدالرحمن الجواهري (شركة الخليج للصناعات البترولية) احتفال اللجنة الفنية وذلك في اليوم السابق للمؤتمر الفني.

تناول الاجتماع الموضوعات الآتية محل اهتمام الاتحاد العربي للأسمدة:- لأول مرة سيقدم الاتحاد الدولي للأسمدة مؤتمراً خاصاً عن السلامة والصحة والبيئة بدولة البحرين في مارس 2009 وسيُدعى إليه كبار المؤسسات والشركات التي تهتم بتطبيقات السلامة والصحة والبيئة في مجال صناعة الاسمدة.

يقوم الاتحاد حالياً بعمل دراسة احصائية للمقارنة بين الشركات في مجال السلامة والصحة والبيئة Benchmarking، ومن المقرر أن تنتهي الدراسة في شهر مايو القادم. يقوم الاتحاد حالياً بعمل دراسة احصائية للمقارنة بين الشركات بهدف التعرف على متوسط الانبعاثات وكفاءة استهلاك الطاقة Energy Efficacy and CO2 Emission. ولقد عرضت اللجنة الفنية مقترحاً عن حوار السلامة، وفي هذا الوضع يمثلوا الاتحاد العربي للأسمدة خبرة الاتحاد في هذا المجال، وكانت هناك ثلاثة محاور:-

(1) المقترح الخاص بجوائز السلامة للاتحاد العربي للأسمدة، ويرجع فيه إلى الجمعية الملكية للوقاية من الحوادث ROSPA وهو يحتاج إلى فترة من 18 إلى 24 شهر لتجميع وتحليل البيانات وعرض النتائج.

(2) مقترح بسيط يقوم أساساً على الدراسة الاحصائية لحوادث واصابات العمل بحيث تمنح الجائزة بدرجات مختلفة لكفاءة الشركات التي امتصت (مليون ساعة عمل)، (ومليون ساعة عمل) بدون اصابات مقعدة، على شكل شهادة تقدير للشركات الفائزة.

(3) جائزة لأحسن الاسهامات في مجال السلامة والصحة والبيئة.

كما ستقوم مجموعة العمل الخاصة (بالسلامة والصحة والبيئة) بمراجعة مبادئ السلامة للاتحاد لتعكس اهتمام الاتحاد بصورة اشمل من ناحية نظم الإدارة وقد تطوعت لجنة السلامة والصحة والبيئة بالاتحاد بمراجعة تلك المبادئ.

وقد رفعت مجموعة عمل السلامة والصحة والبيئة مسودة دليل عن السلامة في صناعة الاسمدة، وقد قام بهذا العمل أساساً رئيس المجموعة من شركة YARA، ومساهم لجنة السلامة والصحة والبيئة بالاتحاد في مراجعة ذلك الدليل ليكس الفضل للممارسات في مجال صناعة الاسمدة، واستحوال الاستفادة منه في الاتحاد العربي للأسمدة.

بالإضافة، ستقوم اللجنة الفنية باستقصاء رأي أعضاء الاتحاد في موضوع التغير المناخي تحسباً لأي تشريعات قد يكون لها أثر سلبي على نمو وتطور صناعة الاسمدة.



## البتروكيماويات تحقق 201 مليون دولار أرباحاً قياسية صافية

الإنتاجية عن تحقيق أرباحاً صافية للمساهمين بلغت 201 مليون دولاراً أمريكياً بأكثر من 24% زيادة مقارنة بالعام الماضي.

أما في مجال السلامة والصحة المهنية فقد أوضح جواهرى بأن الشركة حصلت خلال عام 2007م على الجائزة العالمية في مجال السلامة والصحة المهنية من الجمعية الملكية للوقاية من الحوادث (RoSPA) بالملكة المتحدة نظراً لمجيزها عالمياً في التقيد بمعايير السلامة والصحة المهنية وتبنيها دوراً ريادياً في هذا المجال. كما استطاعت الشركة إعادة اعتماد نظام السلامة والصحة المهنية (OHSAS 18001) بكل سلاسة وبسر سبب الأنظمة الوقائية المتبعة في الشركة. وأثمرت جهود الشركة عن إتمام ما يصل لمجموع ساعات العمل التي أتمت دون حوادث مقعدة عن العمل إلى أكثر من 10 ملايين ساعة، معتبراً ذلك إنجازاً رائعاً.

وتقديرًا للجهود الحثيثة التي تبذلها الشركة لتطوير وتدريب البحرينيين من داخل وخارج الشركة، استحدثت الشركة المركز الأول بين الشركات المعنية من اشتراكات التدريب المهني ونالت جائزة التميز في مجال التدريب وتأهيل العمالة الوطنية للقطاع الأهلي، إضافة إلى درع التميز العام من «اللقعة الأولى» وجميعها من وزارة العمل بملكة البحرين لعام 2007م. وأضاف جواهرى قائلاً بأن المعدل الشهري للقوى العاملة خلال العام الماضي بلغ 474 عاملاً، إضافة إلى 41 متدرباً أتم منهم 17 موظفاً برامجهما التدريبية بنجاح بالإضافة إلى 7 ممن أنهوا برامج التطوير لشغل مناصب قيادية من الشركة. كما بلغ عدد الدورات والبرامج التدريبية التي نفذتها الشركة داخل وخارج المملكة 204 برنامجاً في شتى الاختصاصات حضرها 934 مشاركاً. ووأعرب عن سعادته بأن ما تحقّق من أرباحاً قياسية جاء نتيجة للجهود المخلصة التي بذلها العاملون من ترشيد للإنتاج وتخفيض للمصروفات وتكلفة الإنتاج مع تطويره وذلك بدمج مستمر وتوجهات سديدة من مجلس إدارة الشركة الموقر، وتوّه بجهود الشركة في تدريب البحرينيين وتطوير القوى العاملة مع الإهتمام بأولوية السلامة والصحة المهنية.

أعلن صاحب المعالي الشيخ عيسى بن علي آل خليفة مستشار سمو رئيس الوزراء للشؤون الصناعية والنفطية رئيس مجلس إدارة شركة الخليج لصناعة البتروكيماويات، أن الشركة قد حققت أرباحاً صافية قياسية بلغت 201 مليون دولاراً أمريكياً خلال عام 2007م.

قدم معالي رئيس مجلس إدارة الشركة الشكر والتقدير للسادة المساهمين والسادة أعضاء مجلس الإدارة والإدارة التنفيذية وجميع العاملين في الشركة. كما أعرب معاليه عن عميق إعترازه بالعلاقة الوثيقة التي تربط بين مملكة البحرين والمساهمين في كل من المملكة العربية السعودية ودولة الكويت الشقيقة، حيث تعد الشركة مثلاً ناجحاً للتعاون الخليجي المشترك. وأوضح معاليه أن ما

تحقق من أرباح قياسية جاء نتيجة لجهود المخلصة التي بذلها العاملون في مواصلة ترشيد الإنفاق وتخفيض المصروفات وتكلفة الإنتاج مع تطويره، إضافة إلى جهود السادة المسؤولين الذين بذلوا جهداً مضاعفاً لتسويق منتجات الشركة في الأسواق العالمية التي تقدم أكبر عائد للشركة، منوهاً معاليه بجهود الشركة في تدريب البحرينيين وتطوير القوى العاملة.

وأضاف معاليه بأن إنتاج مصانع الأمونيا واليوريا والميثانول يستمر بأعلى مستوى من الجودة والكفاءة مع المحافظة على أقصى مستويات السلامة والصحة والبيئة.

هذا وقد أعرب سعادة الدكتور الشيخ محمد بن خليفة آل خليفة عن تقديره والإنجازات المتميزة التي حققتها شركة الخليج لصناعة البتروكيماويات والتي تعتبر مثلاً ناجحاً للتعاون الخليجي المثمر. كما أشاد سعادته بالكفاءات الوطنية المخلصة التي تشرف علي إدارة وتشغيل مثل هذه الصناعة المتقدمة ذات التقنية العالية والتي تبوّأت مكانة مرموقة عالمياً في صناعة البتروكيماويات، متمنياً مساعده هذه الشركة الرائدة والقائمين عليها دوام التوفيق والنجاح.

من جهته، أكد المهندس عبدالرحمن جواهرى مدير عام الشركة استمرار إنتاج مصانع الأمونيا واليوريا والميثانول بأعلى مستوى من الجودة والكفاءة مع الحفاظ على أفضل مستويات السلامة والصحة والبيئة. كما أوضح بأن الشركة واصلت في عام 2007م كما في الأعوام السابقة تحقيق الإنجاز تلو الآخر حيث تمخضت جهودها لترشيد الإنفاق وزيادة



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# The Ammonia Handling and Shipping Safety Workshop

**4 – 5 June 2008**

**Renaissance Alexandria Hotel, Alexandria, Egypt**

ICIS, in partnership with the International Fertilizer Industry Association and the Arab Fertilizer Association, is organising an Ammonia Handling and Safety Shipping Workshop. The Workshop will share current best practices in the safe transportation of anhydrous ammonia, addressing the most crucial safety and security aspects for the fertilizer business.

**Key topics will include:**

- Ammonia seaborne market trends
- Ship chartering, including ammonia vessel vetting practices
- Loading facilities lay-out
- Pre-arrival information and product transfer operations
- Safety, health and environment requirements
- Personnel training
- Documentation and records
- A technical tour of the Abu Qir Fertilizer Plants in Alexandria

The two-day workshop will include interactive sessions to facilitate networking and stimulate discussion among participants. Delegates should expect to take active participation in the programme.

For further information visit: [www.icis.com/ammoniasafety](http://www.icis.com/ammoniasafety) or contact: **Joanne Fisher**, email: [joanne.fisher@icis.com](mailto:joanne.fisher@icis.com) or telephone: **+44 20 8652 3836**.

If you are a member of the AFA, you are entitled to a discount on your delegate fee. Please contact Joanne Fisher to obtain your discount.

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utilization gene across N-limited environments and no yield loss when rates were decreased from about 200 to 45 kg N/ha (Topp 2007). Genetics for improved nutrient use efficiency would be welcomed by the farmer and industry alike to ensure nutrients are used most effectively. However, regardless of genetic advances in nutrient utilization, fertilizer BMPs will still be the cornerstone of nutrient management.

## Conclusion

■ Plant nutrition systems are changing in response to new demands for biofuels and environmental concerns. New tools are available to improve our management capabilities and there is a greater awareness of the need to improve nutrient use efficiency. However, the basics of good agronomy and management are still the foundation of profitable and sustainable crop production and nutrient management.

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■ Nutrient use efficiency is higher at the lower part of the curve because any addition of a limiting nutrient gives a relatively large yield response. Then, following the law of diminishing returns, response to the next increment of applied nutrient decreases and efficiency of the applied nutrient also decreases, because the increment of yield response is smaller.

■ Using lower rates of fertilizer produces the highest nutrient efficiencies, regardless of which index is used, but that does not mean lower rates are better for the environment. Applying less than optimal rates leads to nutrient mining and lower yielding crops which produce less above- and below-ground residues to build soil organic matter and protect the soil against erosion. Maximizing nutrient use efficiency should not be the primary goal, even if environmental protection is the only concern. The goal should be to use fertilizers effectively and efficiently, and to do that requires more than just adjusting rates. It requires applying the correct nutrient in the amount needed, timed and placed to meet crop demand.

■ Right product, right rate, right time, and right place are the underlying principles of fertilizer management and the foundation of fertilizer BMPs. These guiding principles for fertilizer management were summarized as follows in Roberts (2007).

**Right product:** Match the fertilizer source and product to crop need and soil properties. Be aware of nutrient interactions and balance N, P, K, and other nutrients according to soil analysis and crop needs. Balanced fertilization is one of the keys to increasing nutrient use efficiency.

**Right rate:** Match the amount of fertilizer applied to the crop needs. Too much fertilizer leads to leaching and other losses to the environment and too little results in lower yields and crop quality and less residue to protect and build the soil. Realistic yield goals, soil testing, omission plots, crop nutrient budgets, tissue testing, plant analysis, applicator calibration, variable rate technology, crop scouting, record keeping, and nutrient management planning are BMPs that will help determine the right rate of fertilizer to apply.

**Right time:** Make nutrients available when the crop needs them. Nutrients are used most efficiently when their availability is synchronized with crop demand. Application timing (pre-plant or

split applications), controlled release technologies, stabilizers and inhibitors, and product choice are examples of BMPs that influence the timing of nutrient availability.

**Right place:** Place and keep nutrients where crops can use them. Application method is critical for efficient fertilizer use. Crop, cropping system, and soil properties dictate the most appropriate method of application, but incorporation is usually the best option to keep nutrients in place and increase their efficiency. Conservation tillage, buffer strips, cover crops, and irrigation management are other BMPs that will help keep fertilizer nutrients where they were placed and accessible to growing crops.

■ These "rights" can be considered the objectives of fertilizer management. They do not act independently, but are interdependent. For example, the fertilizer product may determine how the fertilizer should be placed, i.e. surface applied or incorporated, and the placement may influence the application rate. These "rights" are also interlinked and influenced by other agronomic BMPs. For example, row spacing can influence application rate and placement, seedling sensitivity to salts will influence fertilizer source and placement, tillage system will impact placement and timing options, and so on.

■ Fertilizer BMPs must be site- and grower-specific. They must be sufficiently flexible to be used by small, low-tech farmers in developing countries and large high-tech farmers in developed countries. Right product, rate, time, and place are an integral part of a global framework being proposed by IPNI (IPNI 2007) and under consideration by the International Fertilizer Industry Association (IFA) as part of an initiative of an IFA Task Force on Fertilizer Best Management Practices.

■ Appropriate fertilizer BMPs may not be the only tools accessible for increasing nutrient use efficiency. The biotech industry is evaluating genetics for N-efficient crops. Monsanto recently announced collaboration with Evogene, another biotech company, to improve N use efficiency in maize, soybeans, canola, and cotton (Monsanto 2007). Evogene is reported to have discovered a number of genes that help plants maintain yield with lower applications of N. Last year, field trials in Illinois and Iowa reportedly demonstrated yield increases of 5 to 15% with Monsanto's lead N

recovery in cereals are 0.3-0.5. Under conditions of best management, RE of N could range from 0.5-0.8.

- Each index of efficiency gives a different value and has a different interpretation with associated limitations. PFP and AE are production efficiencies, i.e. the output is the harvested crop and PNB and RE are recovery efficiencies, or the nutrient

recovered by the crop. For example, Snyder and Bruulsema (2007) calculated efficiency values for N from an irrigated maize trial in Nebraska (Table 1).

- Each index of efficiency decreases with increasing rate of N, suggesting that the lowest N rate is the most efficient system. However, the most profitable system was at 134 kg N/ha. There is always a trade-off between efficiency and profitability.

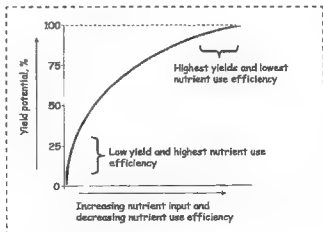
N rate	Yield	Total N uptake	Grain N uptake	Production efficiencies		Recovery efficiencies		Net return to applied N* \$/ha
				PFP	AE	PNB	RE	
Kg/ha								
0	7526	121	82	—	—	—	—	—
67	8593	148	95	128	16	1.42	0.39	91
101	8969	158	101	89	14	1.00	0.36	111
134	9229	166	105	69	13	0.78	0.33	116
168	9345	171	108	56	11	0.64	0.30	106
202	9345	176	110	47	9	0.55	0.27	79

PFP=Y/F, kg yield/kg N applied; AE= (Y-Y<sub>0</sub>)/F, kg yield increase/kg kg N applied; PNB=UHar/F, kg grain N uptake/kg N applied; RE=(U-U<sub>0</sub>)/F, kg increase in total N uptake/kg N applied; Where: F=N applied, Y=yield, Y<sub>0</sub>=yield without N, UHar=N content of grain, U= total N uptake, U<sub>0</sub>=total N uptake without N.

\*Net return calculated assuming N cost US\$0.88/kg and maize valued at US\$ 0.14/kg.

**Table 1.** Nitrogen use efficiency calculated from N response data (3-yr average) reported for an irrigated maize study (adapted from Snyder and Bruulsema 2007).

If maximizing nutrient use efficiency were our only goal, then we would always want to work at the lower part of the yield response curve since efficiency is inversely related to yield response to applied fertilizer. For example, on a typical yield response curve, the lower part of the curve is characterized by low yields because few nutrients are available or applied (**Figure 5**).



Midwest (Whipker and Akridge 2007). About 73% of survey respondents in the Midwest, the largest responding group,

indicated they offered precision services (Figure 3).

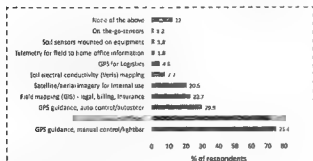


Figure 3. Precision technology used in Midwestern dealerships in 2007 (Whipker and Akridge 2007).

■ Seven years ago only 52% of dealerships were offering precision services. GPS guidance systems are the most common precision technology offered today, but soil sampling with GPS and field mapping using GIS are still very prevalent (Figure 4).

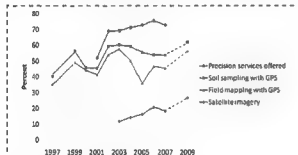


Figure 4. Precision ag services offered in the Midwest U.S. over time (Whipker and Akridge 2007).

About 56% of dealerships offer single-nutrient variable rate application (a doubling of the 26% that offered this technology 10 years ago) and 32% offer multi-nutrient variable application. Both single- and multi-nutrient variable rate applications are expected to further increase over the next 2 years.

■ These new high tech tools are changing the way farmers make nutrient management decisions. Some technologies such as remote sensing and on-the-go-sensing are still under development and evaluation, while others (e.g. intensive soil sampling, yield monitoring, and variable rate application) have been successfully implemented to varying degrees.

■ One of the most recent developments, guidance systems are attracting great interest among farmers. Guidance systems use GPS to steer tractors and other application equipment in straight lines, thus reducing costs associated with skips and overlaps plus allow operation of equipment in darkness or reduced visibility and

reduce driver fatigue. A more in-depth discussion of precision agriculture and its application in nutrient management is available in a compilation of Site-Specific Management Guidelines covering 45 different topics (SSMGs 2007).

## Nutrient Use Efficiency and Fertilizer Best Management Practices

Nutrient use efficiency is a common and recurring theme in today's political and academic discussions. Driven by a growing concern or perception that plant nutrients, particularly mineral fertilizers, are being used excessively and inappropriately resulting in harmful effects to our environment, there is a greater awareness of the need to manage plant nutrients effectively and efficiently. However, nutrient use efficiency is complicated and easily misunderstood or misrepresented as there are numerous definitions of and ways to calculate it.

■ Four of the most commonly used indices for nutrient use efficiency have been described by Snyder and Brulsema (2007).

1. Partial factor productivity (PFP), the simplest measure of efficiency, is calculated in units of crop yield per unit of nutrient applied and is easily determined for any farm that keeps records of fertilizer inputs and crop outputs. PFP for N can range from 40 to 80 kg of cereal production per kg of applied N.
2. Agronomic efficiency (AE) is the yield increase per unit of nutrient applied. It is more complicated in that it requires an estimate of yield without a nutrient input, or a test strip or plot where no fertilizer was applied. AE of N ranges from 10 to 30 kg of cereal grain per kg of N.
3. The simplest form of recovery efficiency is the partial nutrient balance (PNB), or removal to use ratio, calculated as the nutrient in the harvested portion of the crop per unit of nutrient applied. It is easily measured and is useful to farmers. PNB ratios <1 indicate nutrient removal was less than nutrient application and the soil fertility is improving. Ratios >1 indicate nutrient removal in excess of application or nutrient mining. A PNB near 1 reflects system sustainability.
4. Recovery efficiency (RE) is more complicated and more useful to scientists. It is defined as increase in crop uptake in response to applied nutrient and requires an estimate of nutrient uptake from an unfertilized control treatment. Typical values for N

all time high, but nutrient management is being closely scrutinized.

■ How the U.S. handling of ethanol is increasing need for more maize and what is the potential impact on the fertilizer industry? Strong demand for ethanol is causing higher maize prices and providing incentives to increase maize acreage. Most of the increase in maize planting in the U.S. occurs by adjusting the normal maize/soybean rotation ... farmers have been planting more maize and less soybeans, but adjusting rotations is somewhat limited for both agronomic and economic reasons. The U.S. has set aside fragile land in a Conservation Reserve Program (CRP), but expanding maize production into CRP lands would not be sustainable or environmentally acceptable. Increasing unit production is the other and more probable option for meeting increased maize requirements.

■ Policymakers and the biotech industry are confident U.S. maize yields can double within a generation due to the development of drought-resistant maize (Cassman and Liska 2007). With the current maize production at about 9.2 metric t/ha, bringing the yield up to 18 t/ha over the next 30 years would require a 2.3% exponential rate of growth. However, Cassman and Liska (2007) point out the 40-year trend for U.S. maize yields have been linear with an annual increase of 112 kg/ha or a 1.2% relative gain compared to the current 9.2 t/ha yields (Figure 2).

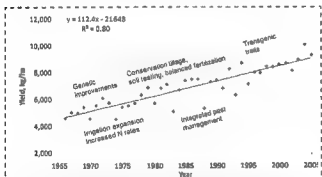


Figure 2. U.S. maize trends and technological advances that contributed to the annual rate of gain of 112 kg/ha from 1966-2005 (adopted from Cassman and Liska 2007)

And, the past trend has been supported by introduction of hybrids, expansion in irrigation, conservation tillage, soil testing, and balanced fertilization, and the introduction of transgenic insect resistant "Bt" maize. If the genetics industry can deliver on the promised yield increases of about 3% per annum and if that genetic potential can be converted into more yield, nutrient consumption will increase significantly. Going forward through 2020, Fixen (2007) estimated the extra production

from a 3% annual increase in maize yields would require an additional 18% N, 21% P, and 13% K compared to current U.S. fertilizer use (average of 2004-2006).

■ Ethanol production from cellulosic biomass is currently under development at pilot plant stages and could potentially be commercialized, possibly within the next 5 years. When cellulosic ethanol production becomes commercially viable, it will have a large impact on K demand. Current estimates indicate the U.S. has about 194 M t of biomass from agricultural lands that could be used for ethanol production; 75 M t or almost 40% of that is from maize stover. Using average nutrient concentrations, maize stover would contain 713,000 t N, 214,000 t of P<sub>2</sub>O<sub>5</sub>, and 1.2 M t of K<sub>2</sub>O, or 6, 5, and 23% of current annual U.S. consumption for N, P<sub>2</sub>O<sub>5</sub>, and K<sub>2</sub>O (Fixen 2007).

## Precision Agriculture

Precision agriculture can be described as a group of technologies used to monitor and manage in-field spatial variability. The concept has been around for about 20 years, but unlike site-specific farming, which has been practiced since the beginning of agriculture when farm work was done with horses and the farmer could easily manage one part of the field differently from another, precision agriculture uses information to customize soil and crop management to fit specific field conditions (Lowenberg-DeBoer and Erickson 2000). Precision agriculture depends on global positioning systems (GPS) and other technologies to gather soil and crop soil information and geographic information systems (GIS) to map and manage that information. It includes grid soil sampling, yield monitors, applicators that can vary input rates across a field, and remote sensing applications. Precision technologies can be used independently or grouped together. For example, a farmer might use grid soil sampling and a yield monitor to develop a nutrient application map and variable rate technology to apply different rates of fertilizer to different zones in the field.

■ Based on 2003 United States Department of Agriculture surveys, yield monitors are the most widely adopted precision tool, being used on over 35% of U.S. maize acreage and almost 30% of soybean acreage (Daberkow et al. 2006). Variable-rate fertilizer applicators were used on about 10% of maize acreage. A recent survey of precision agriculture services offered by 2500 retail fertilizer dealerships across the U.S. suggests the



# New Trends in Plant Nutrition Systems

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## Introduction

**D**emand for plant nutrients has never been greater. World fertilizer demand is expected to reach 163.9 million metric tons (M t) in 2006/07, almost 5% more than the year before (Heffer 2007). Forecasts over the next 5 years suggest growth will continue at 2.6% per annum. Global economic growth remains strong, especially in emerging economies where increased income is resulting in more animal-based protein, fruit, vegetables, and vegetable oils in the diet and less cereals and plant-based protein. Feed grains and vegetable crops have a higher nutrient demand than cereal and pulse crops. Coupled with changing and improved diets, energy demands and high crude oil prices are driving unprecedented growth in biofuels.

■ Global production of biofuels doubled in the last 5 years and will likely double again in the next few years (IFA 2007). The world produced about 37 billion litres of biofuels in 2005, 85% from ethanol. Brazil accounted for 48% of the ethanol produced; the U.S., 44%. In 2006, global ethanol production peaked at 51 billion litres; 39% produced in the U.S. and 33% in Brazil (RFA 2007). Production is expected to continue to increase in the future.

■ Ethanol biofuels and their impact on nutrient demand is just one of the new trends related to plant nutrition. Potential negative impacts of fertilization on water and air quality and climate change are attracting considerable public attention and are affecting how we manage plant nutrients. Precision agriculture has provided new tools to improve our ability to manage nutrients and there is an increased focus and awareness of site-specific nutrient management as a means of reducing the environmental foot print of using plant nutrients. The fertilizer industry is advocating greater awareness of fertilizer best management practices (BMPs), which will also reduce environmental impacts related to nutrient use and improve public perception of our industry.

## Biofuels

**T**he U.S. has been the world's largest producer and exporter of maize and is now the world's largest producer of ethanol, made primarily from maize. In 2006, the U.S. produced 18.5 billion litres of ethanol from about 40.7 M t of maize, or 14.4% of the maize crop (RFA 2007, WASDE 2007). That exceeded the previous year's production by about 3.8 billion litres or 25%. Ethanol production is projected to be 26.9 billion litres in 2007 (FAPRI 2007), which will require 53.7 M t of maize or about 20% of the U.S. maize crop. During the next decade, U.S. ethanol production is expected to steadily increase and will exceed 45 billion litres in the next few years and then level off at just below 50 billion litres (Figure 1)

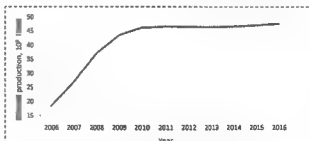


Figure 1. Projected ethanol production (billion litres) in the U.S. from 2007-2016 (FAPRI 2007).

■ The effects of the explosive demand for ethanol are rippling throughout the field crop sector in the U.S. and throughout the world. Maize prices have increased, allocation of acreage among crops is changing, U.S. maize exports are flat or declining (Schoonover and Muller 2006), a trend expected to continue, and feed and food prices are increasing, not just in the U.S., but in many areas of the world. These related factors are generating considerable debate about "food vs. fuel" and critics are questioning the "greenness" of ethanol production, all of which impact the fertilizer industry ... nutrient demand is at an



**Arnaud Leclezio**  
*MS Island Fertilizer, Mauritius, Africa*

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Volumetric Blend Systems



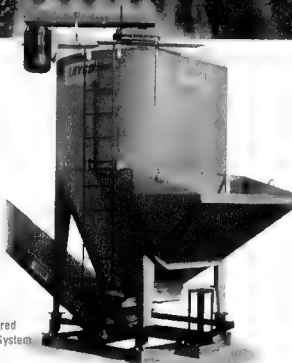
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at only modest 14% compared to the existing fleet, against 115% for 50-60,000 dwt, 38 % for 60-100,000 dwt, and 86% for vessels over 100,000 dwt. Thereby, the fertilizer industry and other users of handysize and handymax vessels should observe that over the next 2-3 years the fleet growth for such vessels will be very small. But there will be a strong pressure in the marketplace from above in view of the very large order book for Supramax vessels. Panamax tonnage will have to face increased pressure in the next few years both from smaller and from larger vessel sizes. Within the 10-50,000 dwt size range there are also significant differences, with only about 3% on order for the size groups 10-25,000 dwt and 40-50,000 dwt, against 27% for 25-40,000 dwt.

It is interesting to observe the very strong recent revival in the interest for multipurpose vessels. Their flexibility in combining trades in small dry bulk cargoes with project cargoes and containers is getting much attention these days. Whereas only 2% of the multipurpose fleet was younger than 5 years at the beginning of last year and only 5% were younger than 10 years, the present order book stands at 27% of the existing fleet of such vessels. At the same time, ordering of bulk carriers in the range 10-25,000 dwt is minimal and also orders for small container feeder vessels are modest. Actually, multipurpose vessels have a larger existing teu capacity and order book than for pure container feeder vessels in the size range 100-1,000 teu.

Some months ago, it was reported that a major fertilizer company because of the extremely strong bulk carrier freight market had instructed their logistics people to ship all fertilizer cargo by container vessels instead of by bulk carriers. With the normalization now taking place in the dry bulk market, switching back to bulk carriers represents a modest silver lining element, increasing dry bulk tonnage demand somewhat.

Looking ahead, the short and mid-term dry bulk market still looks quite solid, but deliveries of new vessels will really start to bite in early 2009 and 2010 will definitely be a very tough year

for dry bulk owners and also a year when cargo owners should position themselves to secure cheaper freights for subsequent years. In the meantime, cargo owners will choose spot fixtures or short term contracts in order to be in a position to benefit from a future window of opportunity.

Bulk carrier prices have not yet seen major downward corrections although spot rates have softened strongly and timecharter rates have also been significantly reduced.

It is interesting to observe that 15-year old handysize bulk carriers are at present valued at the same level as the newbuilding price for such vessels and that the value of 5-year old vessels are as much as about 50% higher than the going newbuilding price. Obviously considerable changes will take place in the next few years.

Having followed the shipping industry closely as a market analyst for about 40 years, it is indeed sad to observe still another rally of crazy ordering of ships, not least in the dry bulk segment. Once more, it seems much easier to invest than to harvest. Cash seems to be burning in the pockets of shipowners and many finance institutions seem to have forgotten about vital elements of market dynamics in shipping. The order book for all types of vessels stood at 46% at the beginning of this year. Just as a brief illustration, if vessels are expected to sail until the age of 25 years, then 4% will have to be replaced every year to maintain the fleet size. With a yard delivery time of 3 years an order book of 12% should suffice for that end. Many vessels could well last several more years and the age profile is not even, as there are many very young vessel types. Unless we see a very strong increase in scrapping, the total world fleet of all types could increase by well above 10% per year over the next 3 years. In my view, it seems timely to ask what the shipyards shall do after 2010. Perhaps cancellation fees can be a good business for some of the greenfield yards?

In 2007 and 3.8% in 2008. In October 2007, these forecasts were revised to 6.8% growth in both 2007 and in 2008. And now it seems that demand growth in 2007 will be about the same as the production growth at 7.3%. What will happen this year and in the next few years will to quite some degree depend on financial unrest, energy prices and developments in several political and military trouble spots.

High oil prices gave good support to coal demand in important countries and that is likely to continue. At present, China is experiencing a severe winter and has put a lid on coal exports which have shown a falling trend, whereas coal imports to China is surging. In general, I still see coal imports to China as the perhaps largest upside in dry bulk tonnage demand in the years ahead and it seems that India is also bound for strong coal import increases. Many other industries have also seen favourable developments in 2007. For instance, world production of primary aluminium increased 12.6% in 2007, with China up about 35% and Rest-of-world up about 4%.

The dry bulk freight market has recently got solid support from severe congestion in coal and iron ore ports because infrastructure developments have not been able to keep pace with the strong trade volume developments. This has been tying up considerable tonnage capacity in long waiting times. When such infrastructure comes in place or the trade growth slackens, reduced congestion could have a significant downward leverage on freight rates.

In the longer term, it seems that environmental problems will contribute strongly to the demand for dry bulk vessels. Extremely strong winds and flooding in many areas will increase demand for steel and cement, as well as for other construction materials to be used to repair damages and also for works to prevent damages in future, like construction of dikes. Revised city planning and infrastructure planning in general because of rising sea levels will have some of the same effect. There has lately been much focus on bio-fuel. Where the

crushing of soybeans and oil seeds is going to take place will have an impact on type of vessels required in the future, whether to carry beans and meal on the dry side, or vegetable oil in chemical carriers on the other. In addition to environmental concern favouring the use of various types of bio-fuel, more concern is gradually voiced about burning food and social repercussions following price hikes and reduced food supply in different growth areas.

Changing weather conditions, with dry areas becoming dryer and wet areas even more wet, will most likely require more grain and other foodstuffs to be produced on the prairies and on the pampas in the future. This will result in increased shipment distances for agricultural products, in particular when filling in for troubled Australian exports. In areas with an extensive way of farming, in the sense that limited cultivation is taking place and where the use of fertilizer has been modest and yield per area comparatively low, there is a clear upside for more use of fertilizer which will also trigger more demand for fertilizer raw materials.

Looking at the main vessel types, contracting volumes for bulk carrier newbuildings almost tripled from about 50 million dwt in 2006 to 146 million dwt in 2007, whereas new orders for oil tankers were almost halved from about 86 million dwt to 45 million dwt and new orders for container vessels rose strongly from about 22 million dwt to 36 million dwt.

The strong bulk carrier order book increase contains a substantial number of large tankers to be converted into Very Large Ore Carriers in a fairly short time. This sudden conversion activity has dampened dry bulk market prospects significantly. The bulk carrier order book towards end January, according to Fearnleys, amounted to about 53% of the existing bulk carrier fleet, with scheduled deliveries of 8.4% in 2008, 12.9% in 2009, and, so far, 19.3% in 2010.

Here, it is important to observe that there are very significant differences with regard to order book volumes for individual size groups. Thus, the order book for 10-50,000 dwt stood

# Changing Dry Bulk Balance Goog News for Cargo Owners

*Shipping - Editor Jack Hammer*

## Hammer Maritime Strategies

The dry bulk market has been fantastic and exceeded almost all expectations - and fears. Between last year's AFA International Annual Fertilizers Forum and late October/mid-November dry bulk freight rates for different vessel sizes showed incredible growth. Since then we have seen significant downward market corrections and reasons for further substantial transportation costs savings for the cargo owners. Excessive ordering of bulk carriers have continued in the first part of this year and coming vintages of bulk carriers will later on be hard for the freight market to absorb, especially in 2010, when scheduled deliveries now amount to close to 20% of the present fleet to be delivered in just one year alone.

My prediction at this Forum one year ago of a still solid dry bulk market turned out to more than a mild understatement. Between the gathering in early February last year and mid-November the Baltic Dry Bulk Index rose 156% from an already very strong level. However, towards the end of January it had been practically halved and had fallen back as much as 49% to a level which was, however, still 30% higher than when we met last year. The Capesize index rose 160%, before falling back 56% over the same period. Smaller sizes saw rates peaking in late October. Panamax rates rose as much as 184%, before dropping back 53%. Supramax rose 152%, followed by a decline of 43% and Handymax rose 142% before decreasing 34% by late January. It should be observed that present rates for all sizes are still way above break-even level for

vessels acquired in today's market. It can also be seen that rates for smaller sizes are more robust than for larger sizes. These indices are based on timecharter equivalents, or earnings in USD/day. On top of this, the cargo owners have also had to pay up for very high bunker prices, which were about 80% higher at the end of last year than one year before.

On the tonnage demand side, strong global steel demand, and particular in China, was the key driver. The steel industry accounts for roughly half of total dry bulk tonnage demand through shipments of iron ore, coking coal, steel scrap, manganese, ferroalloys and other input materials for the steel industry and also through the very large trade in steel products. Last year, world crude steel production, according to the International Iron and Steel Institute, IISI, increased 7.3% and the pig iron production, which requires iron ore and coking coal, increased as much as 8.4%. China's pig iron production rose 15.6% in 2007, whereas the rest of the world saw a modest increase of 2.0%. There was a clearly slower growth towards the end of the year and in December; China's crude steel production was 9.2% higher than in the same month one year before, whereas the rest of the world was up just 0.8% on the same basis. China's steel exports fell back considerably in the latter part of last year.

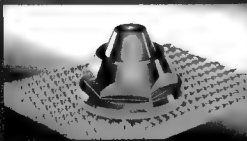
Optimistic steel demand forecasts have had to be revised upwards several times in recent years. Thus, IISI in October 2006 predicted growth rates for world steel demand at 5.2%

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- Growing trade
- **Long term:**
  - Commercialization of cellulosic ethanol: widespread availability, abundance, and significant lifecycle GHG emission reduction potential.
  - Higher oil prices favoring biofuel economics.

#### What are the lessons for other countries?

- Agricultural research, extension, and application by farmers: Critical for lowering production costs
- Cooperation between Gane growers and mill/distillery owners
- Comprehensive utilization: making use of surplus bagasse, cogeneration
- Waste reduction: significant reduction in negative environmental impacts associated with Gane production (field burning) and ethanol production (stillage disposal)
- Countries looking to replicate Brazil's ethanol experience should assess the factors necessary for success over the long term

#### Others questions:

- Do climatic conditions favor sugarcane production?
- Is there good road and communications infrastructure?
- Is there good agricultural research and extension, or a high probability of strengthening it?
- Are farmers provided with adequate primary education?
- Is there a functioning credit market?
- Is there a cadre of managers that can be called upon to manage the industry?
- Is the sugar industry organized to foster cooperation across the supply chain for ethanol production?
- Is there a mechanism for capturing poorly priced externalities?

#### Some Final Suggestions:

- Assess the costs and benefits of biofuel programs in a systematic manner and make use of Brazil and other countries' experiences. Where crops are the feedstock, consider implications for the agriculture sector (including small farmers) and spillover effects;
- Recognize fluctuations in world crop prices and

risks involved (recent experience in Brazil and Thailand);

- Consideration may be given to regulatory reserves for biofuels,
- Biofuel trade liberalization would benefit efficient biofuel producers and consumers alike;
- Be transparent and realistic about the subsidies required for biofuels and how long support may be required;
- Developing country case studies of biofuels programs are needed;
- There is significant long-term potential for bioenergy using new feedstocks and technologies- research programs should be promoted in OECD countries and a handful of the largest developing countries.

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**Part B:** regional bioenergy potential and an assessment of underlying variables." in preparation.

potential for bioenergy crop production are however much larger, comparable to a technical fertilizer demand in 2050 of 108 Mt to 640 Mt.

- In this study, the demand for fertilizers for bioenergy crop production to 2050 was analysed. The indirect impact of bioenergy crop production on the demand for fertilizers is potentially much larger. The production of dedicated bioenergy crops is not allowed to compete with food production or result in further deforestation. Consequently, increases in the efficiency of food production are required to generate surplus agricultural land for bioenergy crop production. The potential to increase the efficiency of food production e.g. by (an increase of) the application of irrigation and by (an increase of) the application of fertilizers is considerable, as SMEETS[7] has shown. Further research on the indirect impact of bioenergy crop production is required to analyse this impact. Further research on the indirect impact of bioenergy crop production is required to analyse this impact.

## 6. Some Conclusions and Recommendations

- The world has to take advantage of bioenergy potential of tropics. Potential environmental and social benefits of biofuels exceed any economic inconvenience that they can create. To continue "Drill –and–Burn Energy Strategy", to link energy shortages to environmentalism or try to relax conservation measures does not make a sustainable energy policy.
- Successful worldwide bioenergy policy, in addition to energy security, could support financial and monetary stability on an international scale.
- There is a need for serious long term studies and debates in order to prevent overestimation of potential on one hand and unjustified criticism on the other.
- Farther analysis of these areas not only will advance academic understanding but also will provide insights of considerable importance to policy makers.
- Countries that embrace foreign investment tend to benefit also from innovation that those investments bring. Since biofuel sector is expected to attract a larger amount of foreign investment, extra effort of strategic planning based on science foresight and technology roadmapping is needed.
- We take it to be self-evident that the objective of Brazilian biofuel program is sustainable growth that benefits poor people so as to bring large

and lasting reduction in the extent of absolute poverty. The major conclusion of this paper is that the green energy, such as ethanol and biodiesel should not be considered only in terms of their relative cost of production compared to other fuels and sources of renewable and non-renewable energy. These commodities should be considered in terms of a balanced approach; energy, food and environmental security including water, air, and soil pollution and other externalities.

- The title of this paper is a Food or Fuel which Comes First? At least in the case of Brazil, Which lately discovered new deep water oil fields, these two essential commodities come or go together. We, in Brazil also believe that many other developing or emerging countries have the same situation. Eventhough, according to FAO, increased production of ethanol during 2007 resulted in more than 20% increase of food price on a worldwide scale. The increase of food price in the medium-long term will help developing countries produce their own food and some surplus for export. Access to a demand elastic biofuel opens new horizons for developing countries and may facilitate elimination of food subsidies by developed countries. Fertilizer prices will follow Petroleum and food prices. Prices in 2007 were about 30% above those of the 2006. Some highlights and recommendation follow in an outline form.

### Why are biofuels attractive?

- Energy security: locally produced, wider availability, «grow your own oil»;
- Climate change mitigation: one of the few lowcarbon options for the transport sector;
- Lower emissions of harmful pollutants;
- Liquid fuels: conducive to existing infrastructure, storage.

### What are the prospects for biofuels?

- **Nearterm:**
  - Ethanol from sugarcane: best overall chance of commercial viability;
  - Biofuel trade liberalization beneficiary to all consumers;
  - Biodiesel remains expensive relative to world oil prices.
- **Medium term:**
  - Fall in production costs;
  - New feedstocks;



1<sup>st</sup> - there are large areas available for new sugar-cane crops in regions having a long-standing tradition of sugar and ethanol production. There is a large stock of semi-idle fertile soils in those areas that are being used in the production of little profitable crops or in low-productivity cattle breeding activities, particularly in the states of Goiás, Minas Gerais and Mato Grosso do Sul;

2<sup>nd</sup> - many corporate groups with long experience in this activity are willing to start carrying out programs for investment in the expansion of their production units or the construction of new ones;

3<sup>rd</sup> - with a physical yield ranging from 6,500 to 7,000 liters of ethanol per hectare of crop area, an area of approximately 150,000 hectares is required for an additional production of 1.0 billion liters of ethanol. This area is not very significant considering the dimensions of the available land in Brazil;

4<sup>th</sup> - the Brazilian production units are mixed and can use the sugar-cane either in sugar or ethanol production. The decision to produce either more sugar or more ethanol depends on the economic advantages provided by each of the products. Therefore, it is possible to increase ethanol production in the short term by reducing sugar production.

■ However, before the production increase can be an economically feasible and sustainable project in order to safely ensure a continued supply in the necessary amounts and terms, it is necessary to do the following:

1<sup>st</sup> - to develop the storage and transportation infrastructure required for sales of large amounts of ethanol in both the source and destination countries. In the destination country, the installation of such infrastructure should be associated with the definition of a logistics project providing for such points as product shipment, delivery, suitable means of transportation, the blending location, and supply to the points of sale of the new product;

2<sup>nd</sup> - to establish the sources of funding for the investments to be made in infrastructure, the increase in the crop area, and the new production park. The agricultural and industrial investment required for every 1.0 billion liters of ethanol is estimated at 250.0 to 300.0 million US dollars;

3<sup>rd</sup> - to determine the platform for increase in ethanol utilization by the importing country in order to allow the flow of investments in production to be adjusted accordingly in the source country. It should be pointed out that the production of raw material (sugarcane) is subordinate to the natural cycle, and a wait of at least eighteen months is required before

other sugar-cane crops are mature for harvesting;

4<sup>th</sup> - to negotiate a clear pricing rule for trade in order to diminish the risks involved in the business for the both sides. The discussion of such rule is necessary in order to ensure continuity of the programs, product delivery within the agreed terms, and economic feasibility of the new product.

It is important to notice that the limit on the ethanol production increase rate is not physical, but economic.

■ Physically, it is possible for Brazil to attend to a new ethanol demand of 1,8 billion liters per year, which is the amount necessary to guarantee the Japanese governmental program of 3% ethanol/gasoline mix, with the actual sugar cane production and industrial capacity. To support this additional demand, it would only be necessary to reduce the sugar production in 2,9 million tons and destine the saved raw material to the production of ethanol. Since Brazil is probably going to produce 27,2 million tons of sugar in the actual season, the above mentioned production reduction would be modest and with moderated impact in the world sugar market.

■ However, if appropriate economic conditions are created for regular trade in ethanol, Brazil can increase its production areas by at least 200,000 hectares per year, which corresponds to further 1.4 billion liters of ethanol. In a nutshell, the speed of the Brazilian ethanol production expansion for the upcoming years will be much more influenced by the steady demand coming from other countries interested in ethanol than by the physical factors that condition the increase in production.

## 5. Implications for Fertilizers

■ The study entitled "Future Demand for Fertilizer from Bioenergy crop Production" made an assessment of the future demand of fertilizers from bioenergy crop production. The projections are translated into fertilizer demand, assuming that all bioenergy is produced from dedicated woody bioenergy crops. The amount of nutrients in the harvested biomass is used as a proxy for the fertilizer demand. Results indicate that the global demand for fertilizer for bioenergy crop production is limited to 1% to 8% in 2015 and 2% to 16% in 2030 of the total global demand for fertilizers for agriculture (excluding bioenergy crop production), equal to 1 Mt, 12 Mt, 4 Mt and 26 Mt, respectively (sum of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O). Particularly during the second quarter of the 21<sup>st</sup> century the production of bioenergy crops could increase rapidly, which could result in a fertilizer demand (sum of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O) of 16 Mt to 63 Mt in 2050. The technical

over how to split the spoils between exporting and importing countries and between public and private sectors in each country[5]. Terrorist attack at any point in the oil production and delivery system can cause major economic and political disruption. Unlike the members of OPEC, terrorist groups have little or no economic incentive to keep oil revenues flowing. The petroleum addiction could be considered, in a certain terms, as drug addiction, as far as national security is concerned, even though there are no laws against it.

- Reasons for the past, present and future success of biofuels in Brazil are: (1) Sugar takes far less energy when converted to biofuels than almost any other product. (2) Synergies with the sugar market due to the coupled production of ethanol and sugar, which occurs in almost all sugar mills, are the significant driver of Brazil's successful ethanol program. (3) Synergies with electricity and heat production. Due to co-generation of heat and electricity, bagasse supplies most of the energy needs of the biofuel production process itself, as well as allowing an increasing amount of electricity to be exported to the grid. (4) Institutional support of Brazilian government that included setting technical standards, supporting the technologies involved in ethanol production and use, providing financial advantages and ensuring appropriate market conditions. (5) Availability of natural resource in Brazil such as abundant agricultural land and an appropriate climate for sugarcane and other energy crops that have not been used as yet. (6) Brazilian Agriculture is less intensive in terms of fossil energy based input since it uses more labor, no-tillage, nitrogen fixation, biological pest control, integrated crop - animal - bionergy systems and makes better use of residues – thus, saving significant amount of energy.

- Today, less than one percent of world fuel production comes from renewable sources, with sugarcane and corn ethanol making up, respectively, the first and second largest raw material sources of renewable fuel. The processing of sugarcane into ethanol is remarkably efficient. A standard ethanol plant yields over 182 million kWh/hour from 1.4 million tons of sugarcane, of which only 40 million energy units are consumed through the process, supplying an excess of over 142 million kWh of energy that can sustain the energy needs of a city of 750,000. Sugarcane ethanol emits low levels of carbon and pollution, and induces social development in rural areas.[6]

### **3. Forest Energy**

- Brasil enjoys the second largest woodland legacy

in the world after Russia and has 5 million hectares of forest planted to eucalyptus and pine. Figures from the Brazilian Forestry Association (SBS) show that Brazil has 64.3% of its 8.5 million square kilometers covered with forests, making up a total of 544 million hectares. The area of planted forests totals 5 million hectares, of which eucalyptus takes up 65% and pine 36%, according to data from the Brazilian Association of Planted Forest Producers (ABRAF). Annual sales of forest products represent US\$ 23 billion, approximately 4.5% of the Gross National Product (GNP), and contribute US\$ 5.6 billion in exports (8% of total exports). Forest cultivation generates 500 thousand direct jobs and another two million downstream jobs.

- In addition to planted forests, there are 1.5 million hectares of trees in preserved areas of the private sector and another three million hectares of native forests that have been included in management plans and approved for sustained lumber production. Forest products have a wide range of uses, the main ones being paper and cellulose production; furniture; planks; hardboard and particleboard; byproducts such as tannin and resins; treated and milled wood; and vegetal coal, including for use in steel industries. There are others with distinct production chains such as mate tea; the extraction of nuts, resins and heart of palm; pharmaceutical products; and cosmetics.
- Aside from the large forested area that makes Brazil the country with the second largest woodland legacy in the world after Russia, productivity levels are considered the highest on the globe, thanks to the climate. As well, the domestic forestry industry is recognized as one of the best developed. However, it accounts for only 1.5% of the world commerce in this sector; estimated at US\$300 billion per annum. This market is still dominated by countries like Canada (20.5%), the United States (11.6%) and Finland (7.6%) with forested areas much smaller than Brazil's and without its climatic conditions. While a eucalyptus in Brazil takes about seven years to reach harvest maturity and a pine about 14 years, it takes an average of 40 years in these other countries.

### **4. Prospects for the increase in fuel ethanol production in Brazil over the next years[4]**

- The facts exposed above indicate that Brazil has the basic conditions to increase the production of sugar-cane and derivatives to much larger amounts than the present ones. The main points on which this statement is based are as follows:

and the oceans.[1] In addition to being a critical component of every dimension of human society, energy is an essential input for economic development, transportation, and agriculture, and it plays an enormous role in environmental problems and solutions, in national security issues, and in science and technology policy in general.

- The energy technology revolution, which will be the equal of the information revolution of the 1990s, will restructure the global oil industry as radically as it was restructured in the 1800s when the demand for whale oil decimated whale populations. It will fundamentally change nations, challenging leaders to balance competing technologies and sectors and shape them into a "new" oil industry that serves the people, not special interests. It will affect every company, every household, and every investor, (PAUL, 2007)<sup>[2]</sup>.
- The global energy problem is so complex that no nation can attempt to solve it acting alone. For the necessary international cooperation to succeed there must be a common basis for understanding the nature of the problem and its possible solutions.
- The new 21<sup>st</sup> century comprehensive energy strategy calls to promote sustainable, secure and clean energy development to help expand economic liberty and prosperity all over the world and protect the economic growth with equity. A more equitably distributed source of energy on a worldwide scale is needed. The Latin America, United States, European Community and Arab Countries or need to find homegrown or home based solution for energy independence and security. Biomass offers a viable alternative for post-oil era with Brazil giving a good example. Bioenergy offers opportunity to complement and partially supplement petroleum.
- Brazil for the last 30 years has spear-headed tropical Agricultural Research and has demonstrated that with relatively small investment it is possible to produce something like biblical miracle of reproduction of bread and change the dominating paradigm that temperate zone have relative advantage in term of agricultural production.[4] In this period, it also demonstrated that, in addition to food and fibers, it can also produce bioenergy to diminish by nearly half its fossil fuel dependence.
- Comparative analyses of developed and less developed countries' production systems identifying potential complementarities linkages and leakages in the product chain can serve for shaping up of strategic global bioenergy

partnerships programs. Brazil, the world's largest and most competitive ethanol producers may serve as model for the Arab, African and others developing countries as they attempt to become energy independent.

- There are many possibilities for Brazil and Arab Countries to collaborate in the development of alternative energy sources both within and outside their countries. The energy development policies, that Brazil can follow, have implication far beyond their own borders. Therefore, the global consequences of energy policy alternatives must be analyzed within the international context and be conscious of market interconnections. A major expansion of global ethanol and biodiesel trade accelerates research of other new biofuels and related products
- Agenda 21, resulting from the United Nations Conferences on the Environment and Development Rio 1992 and Johannesburg 2002, calls for rural energy development. The key challenge is to overcome the lack of commitment and to develop the political will to protect people and the natural resource base. Renewable energy technologies are so well developed, economical and reliable that transition from scarce and polluting fossil fuels to a sustainable energy future should have the highest priority by governments and the world community. Failure to take action will lead to continuing degradation of natural resources, increasing conflicts over scarce resources and widening gaps between rich and poor. We must act while we still have choices. Implementing sustainable energy strategies is one of the most important levers humankind has for creating a sustainable world. More than 2 billion people have no access to modern energy sources, and most of them are living in rural areas. Their share of world population is increasing. Food and fodder availability is very closely related to energy availability. In order to meet these challenges the future energy policies should put more emphasis on the development and deployment of renewable energy resources, forming the foundation of future global energy structure (Brundtland, 1987) [3].
- When comparing countries like Brazil with Arab States in terms of biofuel program various items such as: competition between food, feed and bioenergy for arable land, fresh water need, positive and negative externalities estimated on the bases of environmental accounting, energy balance, subsidies and other factors have to be considered.
- The defining feature of oil politics in the twenty-first century, just like in the past, will be a struggle

policy, such a scenario cannot be ruled out, unfortunately, but it could certainly be avoided. Through development of appropriate integrated food-biofuel system for each region.

■ There may be factors favoring the decision to adopt biofuel production that cannot be captured within a strict quantitative comparison of biofuel versus fossil-fuel costs, such as national energy security or positive externalities to the environment. Bioenergy crop system can, if properly designed, yield significant benefits, both environmental and social. The right choice of biomass crops and production methods can lead to favorable carbon and energy balances and a net reduction in greenhouse gas emissions.

■ The resurgence of ethanol in the fuels matrix is due to private sector commitment to take advantage of ethanol's availability. The flex-fuel car was developed and put into production so those consumers would be able to freely choose between gasoline and ethanol.

■ In Brazil, sugar/ethanol production does not raise concerns about land use. The 5.5 million hectares cultivated with sugarcane represent only 8.6 percent of the total area harvested with food crops. In addition, farmers are increasingly rotating between sugarcane and food crops like tomatoes, soy, peanuts, beans, rice, and maize. This approach has helped maintain the balance between energy and food and has improved land profitability. The expansion of sugarcane plantations could, however, indirectly lead to increased deforestation, as cattle ranching displaced from pastureland by sugarcane production could encroach on forest areas. Until now, most of the cattle ranching activities in the region have continued on a more confined, less land intensive scale.

■ There are several ways to reduce the trade-offs between bioenergy and food crop production. These include:

- Develop biomass crops that yield much higher amounts of energy per hectares or unit of water, thereby reducing the resource needs of bioenergy crops.
- Focus on food crops that generate by-products that can be used for bioenergy, and breed varieties that generate larger amounts of by-products.
- Develop and grow biomass in less-favored areas rather than in prime agricultural lands. This approach would benefit some of the poorest people.
- Invest in increasing the productivity of the food

crops themselves, since this would free up additional land and water for the production of bioenergy crops.

Remove barriers to international trade in biofuels. The world has enough capacity to grow all the food that is needed as well as large amounts of biomass for energy use, but not in all countries and regions.

• Support off second-generation technologies that enable cost-effective conversion of cellulose-rich biomass, like fast-growing trees, shrubs, and grasses that can grow in less fertile and low-rainfall areas, will greatly expand this option within the next 10-15 years.

• Encourage trade as powerful way of spreading the benefits of this global capacity while enabling countries to focus on growing the kinds of food, feed, or energy crops for which they are most competitive. Trade would also allow bioenergy production patterns to change in the most cost-effective ways as new second-generation technologies come on line.

■ For countries that wish to improve their energy security while promoting rural development, Brazil's experience offers some relevant policy lessons. Among the policies most important to Brazil's success were the following:

- requiring the auto industry to produce cars using neat or blended biofuel;
- subsidizing biofuels during market development until economy of scale allowed fair competition with oil products;
- allowing renewable energy-based independent power producers to compete with traditional utilities in the large electricity market;
- supporting private ownership of sugar mills, helps guarantee efficient operations; and,
- Stimulating rural activities based on biomass energy to increase employment in rural areas.

## 2. Policy Consideration

■ A too rapid and worldwide expansion of hydrocarbon consumption implied an energy policy that was unable to moderate the rate of growth of internal fuel consumption in relation to its production. We are nearing the point at which the world, led by the USA and China, and other developed and developing countries will begin to consume more oil than can be pumped from the ground

# Food or Fuel, Which Comes First?

**Elisio Contini**

**Head - Office of  
International Cooperation  
and Research Economist  
- Brazilian Agricultural  
Research Corporation**

**Levon Yeganiantz**

**Senior Research Fellow  
University of Brasilia  
Research Economist Retired  
Embrapa**

**Antonio Carlos Prado**

**Research Fellow - Office of  
International Cooperation  
and Research Economist,  
Embrapa**

## 1. Preliminary Observations

- Biomass has the potential to provide a renewable (green or CO<sub>2</sub> neutral) energy source, locally and readily available in large parts of the world. The (potentially large) increase in the production of bioenergy crops production of dedicated bioenergy crops could have a potentially large impact on land use patterns and the agricultural sector in general, including the demand for fertilizers.
- Following the oil shocks of the early 1970's, the Government of Brazil adopted an ambitious plan (Proalcool) to guarantee the country's energy independence. This experience offers possibility economic resurgence of developing world based on new bioenergy green revolution that can deliver real economic benefits to the poor and rich at the same time. Proalcool for nearly 25 years, is producing between 30 to 40% of transportation fuel as ethanol. In the same period agricultural, mainly food and feed, production has increased three times.
- Proalcool may be the most successful agricultural or agribusiness program undertaken anywhere in the world. In seventies during first and second petroleum crisis. In economic terms, it saved large sums of foreign exchange, diminishing foreign debt accumulation at the time of high interest rates. In terms of social impact, it created more than a millions jobs at the time of economic stagnation and saved million tones of air pollution creating clean fuel, in some at most polluted urban areas like São Paulo. During the late sixties and early seventy Brazil before any other developing country experience "an economic miracle" and achieved a 13-14% rate of growth. At the end of this period two programs continued contributing to Brazilian economic and social development showing. The first was significant investment

through Embrapa Brazilian Agricultural Research Corporation X Second Proalcool. In spite of continuous accusation that ethanol production was causing food scarcity, Brazil was able to find synergetic and complementary relation between its food and energy security. During last twenty years based on generation of new technology Brazil has demonstrated to the whole world that Food and

Energy security can have synergetic relation and complement each other. During this period ethanol substituted between one fourth and one third of transportation fuel and grain production increased three times using 20% more arable land. This was due to significant expenditure made in agricultural research that showed that tropical countries have competitive advantage in many crops particularly those like sugarcane and African oil palm that can be used to produce transportation fuel. Many developing countries cannot afford to use edible oils as an energy source because of their high price and short supply. For these countries, a large variety non-edible oils from plants such as *Jatropha* other can provide biodiesel.

- Rising world fuel prices, the growing demand for energy, and concerns about global warming are the key factors driving the increasing interest in renewable energy sources and in biofuels in particular. But some policymakers and analysts have voiced concern that aggressive growth in biofuel production could "crowd out" production of food crops in some developing countries, creating a tension between the need for energy and the need for food and feed. The results show a "food-versus-fuel" trade-offs in cases where innovations and technology investments are largely absent. In view of past agricultural



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## Dead lines

**Mid of March 2008: Submission of Abstracts**  
**End of March 2008: Notification of Acceptance**  
**Mid of April 2008: Receiving the full Paper**

abstract should not exceed one page and send it by E-Mail.

In case of acceptance you shall be notified immediately in order to submit the full – length manuscript.

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# Events Calendar

## AFA Events:

### May, 2008

- 6-8 Strategic Thinking, Planning & Management Control Workshop (Damascus, Syria)

### June, 2008

- 4-5 Ammonia Shipping Safety Workshop (Alexandria, Egypt)  
17-19 Enhancement of Production Efficiency Workshop - (Alexandria, Egypt)

### November, 2008

- 10-12 20th AFA Int'l. Technical Fertilizers Conference & Exhibition (Jeddah, Saudi Arabia)

## Non AFA Events:

### April, 2008

- 7-11 Strengthening Regional Trade in Agricultural Inputs in Africa: Issues and options - (Lusaka, Zambia)  
9-11 FMB - 5th Asia Fertilizer Conference & Exhibition - (Beijing, China)  
20-23 BSC - Nitrogen + Syngas 2008 (Moscow, Russia)  
28-30 Symposium of the Task Force on Sustainable Agriculture of the Agenda 21 for the Baltic Sea Region (Baltic 21) Issues of Non-Sustainability in Agriculture: Facts and Solutions (Braunschweig, Germany)

### May, 2008

- 13-17 7th Workshop on Sulfur Metabolism in Plants - (Warsaw, Poland)  
19-21 76th IFA Annual Conference (Vienna, Austria)  
19-22 11th Stamincarbon Urea Symposium (The Netherlands)

### July, 2008

- 9-11 FMB - 6th East European Conference - (Odessa, Ukraine)  
14-23 International Training Program and Study Tour on Fertilizer Production (Muscle Shoals, Alabama, USA and Orlando/Tampa, Florida, USA)

- 20-23 9th International Conference on Precision Agriculture (ICPA) - (Denver, Colorado)

### August, 2008 -

- 11-15 Agro-Input Dealer Development in Africa - (Arusha, Tanzania)

### September, 2008

- 3-5 2008 African Congress (Kampala, Uganda)  
21-25 Third International Meeting on Environmental Biotechnology & Engineering (Palma de Mallorca, Spain)  
28-3 2008 ANNA Conference (Kelowna, British Columbia, Canada)

### October, 2008

- 6-17 Application of Decision Support Tools for Fertilizer Recommendations and ISFM - (Accra, Ghana)  
8-10 2nd FMB Ammonia/Urea Conference & Exhibition - (Dubai, UAE)  
21-24 IFA Production and International Trade Conference - (Mumbai, India)  
26-31 4th International Conference on Silicon in Agriculture - KwaZulu-Natal, South Africa)  
29-31 FMB - 22nd European Conference - (Lisbon, Portugal)

### November, 2008

- 2-5 Sulphur 2008 International Conference - (Rome)  
3-7 Fertilizer Granulation Processes and Micronutrients - (Bangkok, Thailand)  
18-20 34th IFA Enlarged Council Meeting - (Ho Chi Minh City, Viet Nam)  
24-27 CIEC- Plant Nutrient Management Under Stress Conditions - (Cairo, Egypt)

### December, 2008

- 16-18 IFA Crossroads Asia-Pacific (Melbourne, Australia)

nologies, contains no moving parts, prevents creation of dust and emissions, and is ultra compact. This technology solves a host of issues commonly experienced in the process of heating and cooling bulk solids\*.

Jordison also noted, "When you deal with Solex for cooling, heating or drying of bulk solids, you get more than a heat exchanger. You get a custom engineered solution that is designed using advanced thermal and flow property evaluation methods. Solex uses proprietary thermal modeling software that accurately predicts product temperatures resulting in a heat exchanger design that comes with guaranteed thermal performance. It's a science. This was the main reason we needed a new corporate name and brand identity, one that reflects our technology, experience, capabilities and guaranteed thermal performance. Solex Thermal Science, Inc. does that."

#### The Solex Heat Exchanger Described

The Solex heat exchanger technology is designed for indirect heating and cooling of free flowing powders and bulk solids.



World Leaders in the Science of Heating and Cooling Bulk Solids.

cooling (or heating) fluid flows through the plates to cool (or heat) the material by conduction. A mass flow discharge feeder regulates the product flow and creates uniform product velocity as the material passes through the cooler.

Solex Thermal Science, Inc. has expert staff located internationally to provide world-wide sales and technical support to its customers, including: Germany, Belgium/France, The Netherlands, and The United Kingdom as well as the United States. The company serves India, Russia and numerous other countries through strategically located dealers. It is represented in Latin America by Ventura Process Equipment Company with offices in Mexico, Colombia,

For more information about Solex Thermal Science, Inc. visit their new web site at [www.discoversolex.com](http://www.discoversolex.com), or contact Solex at: 3122 - 114 Avenue S. E. Calgary, Alberta, Canada T2Z 3V6  
Phone: 403-254-3500  
FAX: 403-254-3501  
[info@solexthermal.com](mailto:info@solexthermal.com).

## Europe's REACH Legislation

The European Union's (EU) new legislation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), which became effective on June 1st 2007, aims to identify chemical risks and hazards of chemicals more systematically and to improve companies' communication of appropriate risk management measures throughout the supply chain.

The ultimate goal is to lower the occurrence of occupational diseases and preventable deaths, thus reducing the costs of chemical use to society. Companies that have not registered their substance by the appropriate deadline will no longer be permitted to manufacture or import that substance into the EU.

Under the new regime, all companies that manufacture or import one tonne or more of a chemical substance annually must register it in a central database at the European Chemicals Agency (ECHA), regardless of when it was first available in the EU market.

The registration procedure involves submitting a technical dossier containing information on the substance and guidance on safe handling. For quantities over 10 tonnes, companies must also submit a Chemical Safety Report. Authorities will then determine if further testing is necessary. Substances of very high concern are subject to an authorization procedure.

## 2008 IFA Int'l. Crop Nutrition Award

Dr. Achim Dobermann from the International Rice Research Institute (IRRI) in the Philippines is the laureate of the 2008 IFA International Crop Nutrition Award. Dr. Dobermann currently leads IRRI's programme "Sustaining Productivity in Intensive Rice-Based Systems: Rice and the Environment" and the IRRI-CIMMYT Alliance Project on Intensive Production Systems in Asia (IPSA). He has been nominated by K+S Kali, Germany and has been selected by an independent jury among 13 high-level scientists. Dr. Dobermann will receive the Award at the Opening Session of the IFA Annual Conference on Tuesday, 20 May in Vienna, Austria.



## LUKOIL awards Uhde two contracts for clean-fuels plants in Bulgaria

Uhde won against international competition two major contracts from the Bulgarian company LUKOIL Neftechim Bourgas AD, part of the Russian petroleum group LUKOIL, to engineer and supply clean-fuels plants for diesel and gasoline desulphurisation for its refinery located in Burgas on the Black Sea. The refining plants for the production of low-sulphur fuels have respective annual capacities of 1.6 million tonnes of diesel and 1.1 million tonnes of gasoline, and are scheduled to come on-stream in 2009. Together, the two contracts are worth in total some €100 million to Uhde.

Uhde's scope of supplies and services comprises the detail engineering, supply of equipment, construction support, commissioning supervision and training of the operating personnel.

The gasoline desulphurisation plant will be based on an AXENS process and a Haldor Topsoe process will be used for the production of low-sulphur diesel. With a sulphur content of less than 10ppm (parts per million), future production will comply with the EU fuel directive in force since 2005. This thus marks the switch to low-sulphur fuels of one of the biggest refining companies in Bulgaria, which joined the European Union on January 1, 2007.

«Innovative refining plants for the production of lower-emission fuels make an important contribution to environmental relief. In the past seven years Uhde has successfully engineered and supplied clean fuels plants with a total capacity of more than 33 million tonnes of gasoline and diesel fuels for renowned companies in the petroleum industry. This clearly underlines our competence in the field of refining technology», said Helmut Knaathe, Uhde Executive Board member responsible for the refining technologies division, on the occasion of the contract signing ceremony.

Uhde is a company in the Technologies segment of the ThyssenKrupp Group and has a workforce of more than 4,400 employees worldwide. The company's activities focus on the engineering and construction of chemical and other industrial plants in the following fields: fertilizers; electrolysis; gas technologies; oil, coal and residue gasification; refining technologies; organic intermediates, polymers and synthetic fibres; and also coke plant and high-pressure technologies. We also provide our customers with professional services and comprehensive solutions in all areas of industrial plant operation.

## BULKFLOW CHANGES CORPORATE NAME TO SOLEX THERMAL SCIENCE, INC.

CALGARY, ALBERTA, CANADA - Bulkflow Technologies, Inc. has changed its corporate name to Solex Thermal Science, Inc. to more accurately reflect the strengths and value the company offers to its customers. The name change becomes effective March 31, 2008.

Founded in 1999 as Bulkflow Technologies, Inc. Solex Thermal Science, Inc. remains a privately held, primarily employee-owned, company specialising in the science of heating, cooling and drying of free flowing bulk solids such as sugar, salt, fertiliser, chemicals, plastics, biosolids, minerals and many other types of granular, crystals and powder. The original cooler technology was invented more than 20 years ago and was acquired by Bulkflow in 1999.

"Solex maintains the same ownership group - its employees - and the same management group," said Neville Jordison, President of Solex Thermal Science, Inc. "More than 90 percent of our employees share a vested interest in our company. Nothing has changed except our corporate name and brand identity which now more accurately portrays the unique knowledge, expertise and product that we offer to our customers."

Along with the new corporate name, Solex also introduced a new slogan that emphasizes the corporate position as world leaders in the science of bulk solids heat exchange and advanced technological development. The slogan, "World Leaders in the Science of Heating and Cooling Bulk Solids," accurately summarises the capabilities and position of the company in the market.

"The world leading innovations produced by Solex come from a committed team of employees that have extensive knowledge and experience dealing with complex heat exchange problems involving bulk solid materials", Jordison added. "We have experience engineering heat exchanger solutions for bulk solids in a wide variety of industries and applications world-wide. Some of the world leading companies trust Solex with the science of heating, cooling and drying their bulk solids".

Jordison emphasised that the Solex heat exchanger technology is a patented technology with unique benefits. "Its design is inherently simple, yet offers the benefits of leading edge technology - it uses up to 90% less energy than competing tech-



# EMT Machines

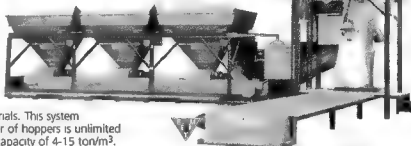
## WEIGHCONT BLENDER AND BIG BAG FILLING STATION HIGH SPEED ►

This Set-Up is a Weighcont Blender with 3 hoppers which are discharging into an Elevator. This Elevator is transporting the blended materials into the High Speed Big Bag Filling Station. Total capacity 100 ton per hour for blending and 50 ton per hour for filling the Big Bags.



### ▲ WEIGHCONT BLENDER

This blender operates with the most modern technologies. The computer commands and controls the entire continuously operating weighing blending process by means of a variable electro or hydraulic control system. This guarantees an optimum quality. The system works as follows: the operator fills the hoppers with raw materials by a wheel loader. Each hopper is mounted on a digital weighing system; the stainless steel dosing conveyors in combination with the digital weighing systems ensure the proper dosing of raw materials. This system has a blending capacity of 20-250 ton/m<sup>3</sup> per hour. The number of hoppers is unlimited. The complete blender is made of stainless steel with a hopper capacity of 4-15 ton/m<sup>3</sup>.



## BIG BAG (FIBC) FILLING UNIT ►

The stainless steel bagging unit is definitely a unique EMT product. There are four options available: the High Speed, the Economic, the Junior and the Basic. All four can process bags of 250 to 1500 kg. The difference lies in the fact that the High Speed operates completely automatically and the Basic is a manually operated unit. The EMT High Speed Big Bag Unit has a maximum capacity of 100 bags per hour of 500 kg per bag.

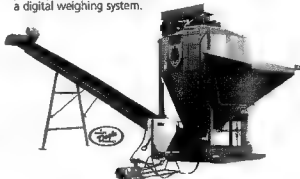
### ◀ SMALL BAG FILLING UNIT

This bagging line is an unit, which can process a maximum of 750-800 bags of 25-50 kg per bag per hour. These rates are achieved by using a double bagging unit. The single bagging unit has a capacity of 300-450 bags per hour. Both machines can be equipped with either an open mouth or venturi bag filling system. A combination of these systems is also available.



## VERTICAL BLENDER ▼

The blending principle of this blender is absolutely unique. A conical screw inside the container blends raw materials in a wave motion, while always ensuring an accurate weighing of the product by never suspending any product. The bottom cone of the blender has a 60 degree angle to eliminate product buildup inside the container. A salem valve on the bottom of the blender, coupled with a sweep on the bottom of the auger ensures complete cleanout of the blender. The machine can reach a capacity of 60 ton/m<sup>3</sup> per hour. The complete system is mounted on a digital weighing system.



## SHAMROCK BLENDER ▲

Various branches of the industry have these Doyle blenders in operation. The blending process is simple: the turning drum has internal flighting which blends the different raw materials in a folding action. The blend has excellent homogeneity, with little or no degradation or segregation. The blending capacity varies from 2 ton with a blending capacity of 2 m<sup>3</sup> till 10 ton with a capacity of 10 m<sup>3</sup>. The weigh hopper has the same capacity as the blender and is mounted on a digital weighing system.

Producers:

EUROPEAN MACHINE MACHINES

E-mail: emt@e-m-t.nl  
Website: www.e-m-t.nl

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The Netherlands

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Fax: +31(0)-224-591454

## Congratulations



As part of GPIC's policy of enabling Bahrainis occupy the senior positions in the Company, promotions and transfers have been announced making the Company under total Bahraini management.

As part of this move, **HE Shaikh Isa bin Ali Al Khalifa**, Advisor to HH the Prime Minister for Industrial and Oil Affairs and GPIC Chairman approved the new promotions which included the appointment of **Mr. Yousuf Abdulla Al Yacoob** as Deputy General Manager for Technical Affairs succeeding **Mr. Eduard Horn**, who has recently retired. Thus, the full management team of the Company is now made up of Bahrainis only.

The new appointments also included **Mr. Ahmed Abdulla Nooruddin**, Plants Operation Manager, **Mr. Fadhel Mallalah Al Ansari**, Technical Services Manager and **Mr. Ahmed Ghuloom Ismail**, Maintenance Manager.

AFA General Secretariat seizes this opportunity to congratulate and express its best wishes to all of them.

Sitting from left to right:-

**Mr. Ahmed Ghuloom**

- Maintenance Manager

**Mr. Yousif Abdulla**

- Deputy General Manager for Tech. Affairs

**Mr. Abdul Rahman Jawahery**

- General Manager

**Mr. Ahmed Nuruddin**

- Plants Operation Manager

**Mr. Fadhel Al Ansari**

- Technical Services Manager

Standing from left to right:-

**Mrs. Salwa Abdul Rahim**

- Payable & Receivable Accountant

**Mr. Nader Abdul Rahim**

- Inspection Superintendent

**Mr. Jamal Al Shawoosh**

- Acting Methanol Superintendent

**Mr. Yousif Kamal**

- Acting Wharf Services Superintendent

**Mr. Bader Al Mansoori**

- Acting Planning Superintendent

## New Members

During its meeting held in the framework of the 14th AFA Annual Forum, AFA's Board Council accepted new members from 5 countries:

**SQM Europe** (Belgium), Observer member

Company profile: Working in field of Fertilizers Industries & Trading.

**Vardhman Shipping** (India),

Supporting member

Company profile: working in the field of Fertilizers Trading & Shipping.

**First Ceena for Chemicals & Fertilizers**

(Jordan) - Supporting member

Company profile: Working in the field of Chemicals, Fertilizers & Materials Supplying & Trading

**Galaxy Group** (Egypt), Supporting member

Company profile: Industrials Equipments Suppliers & Agencies

**Latakia Marine & Trading Corp.**(Egypt)

Supporting member

Company profile: Renting Cargo Ships

**Red Sea Navigation** (Egypt)

Supporting member

Company profile: Renting and administrating other Ships

**Inter-trade Resources Ltd.** (UAE)

Supporting member

Company profile: Fertilizers & Raw materials Trading

# ENHANCEMENT OF PRODUCTION EFFICIENCY

## WORKSHOP

June 17 - 19, 2008 - Alexandria

Egyptian member companies:

- Abu Qir Fertilizer Company
- Alexandria Fertilizer Company

for enhancement of production efficiency and bottlenecks solving.

The following topics will be provided by well known experienced speakers and experts:

- Process and equipment de-bottlenecking.
- Process optimization with emphasis on decreasing production costs.
- Case studies addressed by AFA member companies on workshop topics and related subjects.

Managers, Engineers and Technicians working in the following fields are invited to register:

- Operation
- Maintenance & Warehouses
- Quality Control
- Safety, Health and Environment

More details & registration form are available on AFA web site: [www.afa.com.eg](http://www.afa.com.eg)

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Arab fertilizers



## A JOINT WORKSHOP TO FOCUS ON AMMONIA HANDLING & SHIPPING SAFETY

June 4 - 5, 2008 - Alexandria

WORKSHOP

ICIS, in partnership with the International Fertilizer Association (IFA) and the Arab Fertilizer Association (AFA), is organising an Ammonia Handling & Shipping Safety Workshop at Renaissance Hotel, Alexandria on June 4 - 5, 2008.

The Workshop will deliver current best practice in the safe transportation of anhydrous ammonia, addressing the most crucial safety and security aspects for the fertilizer business.

### *Key topics will include:*

Ammonia seaborne shipping including market trends, ammonia vessel vetting practices and vetting certification processes

**\*\* Risk management during loading, transportation and discharging**

**\*\* Safety measures at loading and discharging points**

**\*\* A technical tour of the Abu Qir and Alexfert fertilizer plants**

The two days workshop will include interactive sessions to facilitate networking and stimulate discussion among participants.

Delegates should expect to take active participation in the programme.

The workshop will attract senior industry representatives from international fertilizer producers, trading and shipping companies.

If you are involved with ammonia shipping or you want to learn more about it, you should register to attend the Ammonia Shipping Safety Workshop. The workshop will explore current best practice in the safe transportation of anhydrous ammonia.

When it comes to the science  
of bulk solids heat exchange,  
we stand alone.



When it comes to cooling, heating and drying bulk solids – whether it's sugar, chemicals, fertilizers or plastics – Solex offers leading edge technology. Our simple patented design is engineered to offer remarkable benefits, like using up to 90% less energy than other technologies.

Learn more about Solex technology at:  
**[www.discoversolex.com](http://www.discoversolex.com)**

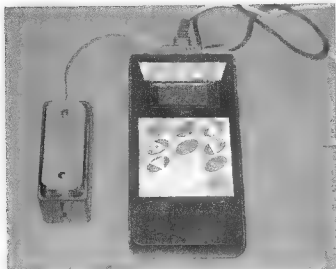


**SOLEX**  
THERMAL SCIENCE

**World Leaders in the Science of Heating and Cooling Bulk Solids**

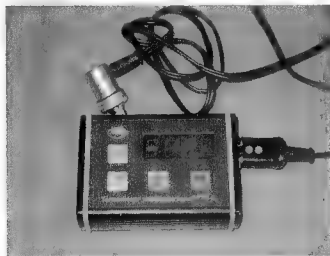
**[www.solexthermal.com](http://www.solexthermal.com)**

*formerly Bulkflow Technologies*



Picture 5. Constanta 5

- Supersonic thickness detectors ensuring precise and quick measurement of a wide thickness range were (picture 6) purchased.



Picture 6. Supersonic thickness detector

The results of each inspection of urea production facilities are carefully collected into united data base enhancing, thus, analytical activity when comparing of each successful practice brings a more beneficial result.

The experience gained in repairing of urea units for more than forty years now ensures JSC

NIIK to provide with guaranteed quality the following services:

- Corrosion inspection of urea units with estimation of high pressure equipment conditions;
- Development of repair methodology for high pressure vessels both in workshop and on site;
- Designing of repair fixtures and tools for rehabilitation of a particular unit;
- Delivery of the necessary metal plates and other prefabricated items;
- Technical supervision of repair works to guarantee their quality.

We are ready to share our best practices in prolonging life time of urea critical equipment with any prospect client and strongly believe that such cooperation will be mutually beneficial.

Recent references of JSC NIK in diagnostic of equipment and process monitoring. Repair of urea production equipment.

Client	Project	Scope of JSC "NIK" services	Year
JSC "Azot", Bereznekd, Russia	Technical diagnostic of high pressure piping and equipment at urea plant	Inspection and repair of equipment and piping service-life definition.	2002
JSC "Azot", Bereznekd, Russia	Process monitoring of urea production facilities	Inspection and delamination of bottle-necks. Issuing of recommendation for energy saving	2002
JSC "Eurochim" Moscow, Russia	Technical diagnostic of critical equipment at urea plant №2 of JSC "Nevinnomyssky Azot"	Inspection of critical equipment and piping, repair and service-life definition, measurement of heat-exchange tubes wall thickness of stripper and condenser	2002
JSC "Eurochim" Moscow, Russia	Process monitoring of urea production plant №2 at JSC "NAK Azot", Novomoskovsk	Inspection of production facilities aimed at further capacity revamp with energy saving	2003
JSC "Eurochim" Moscow, Russia	Technical diagnostic of reactor body lining at urea plant of JSC "NAK Azot", Novomoskovsk	Lining inspection, development of repair procedure. Lining repair	2003
JSC "Eurochim" Moscow, Russia	Technical diagnostic of process equipment at urea plant №2A of JSC "Nevinnomyssky Azot"	Inspection of critical equipment and piping repair and service-life definition, measurement of heat-exchange tubes wall thickness of stripper	2004
JSC "DnepAzot", Dneprodzержinsk, Ukraine	Technical diagnostic of high pressure scrubber, pos. E-203	Scrubber development of repair procedure	2006
JSC "Togliatti Azot" Togliatti, Russia	Process diagnostic of urea units №1, 2	Equipment and pipeline inspection, extension of service life. Repair of high pressure vessel lining	2006
JSC "Kuibyshevazot", Togliatti, Russia	Process monitoring of urea production and water treatment system	Production facilities inspection for further revamping with capacity increase and energy saving	2005
JSC "DnepAzot", Dneprodzержinsk, Ukraine	Corrosion and technical status inspection of reactor R-201, stripper E-201, condenser pos. E-202	Equipment inspection and repair procedure development.	2005
JSC "Minsale odobrenia" Perm, Russia	Monitoring of urea production equipment	Equipment inspection and issue of recommendation for capacity increasing	2006

These basic actions and their further analysis allow reliable estimation of a vessel or a pipeline condition and are put as foundation for development of repair procedures.

JSC NIIK has a very advantageous experience of inspection services and development of repair procedures of the defective unit based on the inspection results supported by Designer's supervision of the repair.

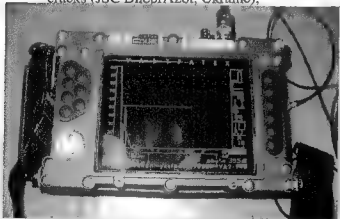
JSC NIIK has been controlling equipment condition of urea units for decades and now is able to provide a forecast of the remaining life of the most significant equipment. JSC NIIK has gained successful references with inspection and repairing of critical equipment and pipelines of urea units launched in FSU in 6080-'s, i.e. total liquid recycle units, CO<sub>2</sub> stripping technology by Stamcarbon as well as those units delivered in the same years by Snamprogetti.

Upon numerous inspections at urea production facilities in FSU a very successful methodologies for repairing of the most problematic sections as HP vessels and pipelines of the synthesis unit were developed and implemented. Recent references please see below.

For the last 2 years new instruments and equipment which ensure more detailed inspection of the units were produced by order and purchased. Some of them are really unique.

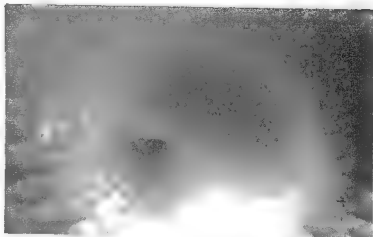
JSC NIIK applies now the following basic instruments:

- Eddy-current thickness fault detector "Delta TD" enables not only measurement of pipe wall thickness of heat exchangers but also finding out the defective areas;
- By means of ultrasonic detector (picture1) a deep damage of the reactor shell was discovered without removing of the lining (JSC FerganaAzot, Uzbekistan) and also seam cracks (JSC DneprAzot, Ukraine);

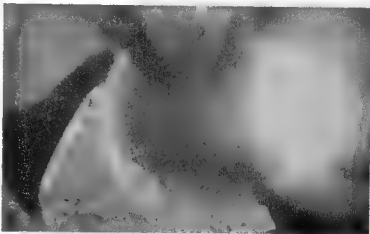


Picture 1. Ultrasonic detector

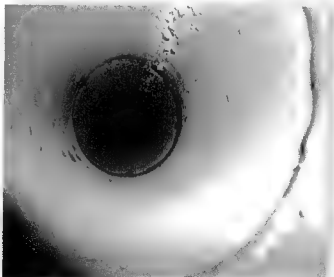
Video endoscope enables examination of inner surface of the pipes and units in hard-to-reach areas and read out of the information (picture2, picture 3, picture 4);



Picture 2. Internal state of titanic heat exchange pipes. Through-damage.



Picture 3. Damage of a heat exchange pipe.



Picture 4. Inner surface of a heat exchange pipe.

- The instrument measuring geometrical parameters "Constanta K5" (picture 5) can measure the gap spacing between the lining and the unit shell. It's very important for instrument diagnosis;



# JSC NIIK - Russia

## Urea Plant Equipment And Piping Inspection

### Practices of JSC NIIK, Research & Design Institute of Urea Organic Synthesis Products, RUSSIA

JSC "NIIK" (Research and Design Institute of Urea and Organic Synthesis Products) – is a full scale engineering company with relevant unique experience and competences in renovation and constructing of grass-root production and engineering facilities for chemical industry. Engineering activity of JSC "NIIK" is recently focused on technologies concerning production of urea, melamine and its derivatives (cyanurate, melem), besides, we are ready to share the best practices in production of cyanides, isocyanates, phosgene and relative compounds.

The company was established on the basis of Dzerzhinsk branch of the state owned (in Soviet times) Institute of Nitrogen Industry (abbreviated as GIAP). Since its origination in 1952 the joint experience of GIAP-Dzerzhinsk and JSC "NIIK" could be referenced to almost 100 various production units built and still serviced by in as many countries as Russia, Ukraine, Lithuania, Byelorussia, Uzbekistan, Estonia and Algeria.

The number of personnel which equals to 300 people as well as their skills and qualification enables our company to provide best experienced engineering services distributed through the number of functional departments that is an up-to-date attribute of a "know-how" company. Such administrative configuration is sufficient for providing services from concept development to "turn key" project realization.

In particular JSC "NIIK" has the following departments:

- Scientific Department – responsible for development of concepts and technologies concerning both processes and equipment.

Scientific department includes laboratories:

- engineering;
- inspection;
- analytical;
- diagnostic of equipment, pipelines, corrosion and welding.
- Design Department – responsible for project management and development of design documentation.

This department includes divisions covering all aspects of engineering profile: economic and business planning, technologies and processes, control systems, civil works, equipment and pipelines'

design, environment protection and industrial safety, - Equipment Delivery and "Turn key" Projects Managing Department-responsible for manufacturing and packaged delivery of equipment and other materials necessary for project realization.

All the mentioned departments are equipped with means and programming tools necessary for high quality engineering in design, planning and control. Key competences of JSC "NIIK" are based on efficient combination of long-term experience and progressive corporate policy of the management focused on development.

In this article we would like to speak about our capabilities in diagnostic and repair of high pressure equipment and pipelines of urea production units.

Laboratory for diagnostic of equipment, pipelines, corrosion and welding was established in order to properly determine actual condition of equipment and estimate the dangerous units' remaining life especially the ones which expired their expected lifetime.

In early 90s the engineers of corrosion and welding laboratory at Dzerzhinsky branch of GIAP started inspection of urea production equipment by means of nondestructive instruments, i.e. tests which are now known as "technical diagnosis".

In 1993 JSC NIIK obtained the 1st license for technical diagnosis of equipment in order to determine its technical condition and make a technical conclusion, but active work started since 1998 when a diagnosis team was created in laboratory № 8 at JSC NIIK.

The following operations are performed during the inspection of the equipment technical state:

- selection of the information and documents required for the unit inspection;
- analyses of technical and operational documents;
- visual inspection;
- measurement of the wall thickness;
- estimation of mechanical properties;
- dye penetrant inspection;
- ultrasonic inspection;
- strength analyses;
- hydrotesting;
- metallographic examination if necessary.

- Global policy imperatives about how companies should do business
- Reinforce its contribution to sustainable development through its core business of helping farmers meet the world's food, feed, fibre and energy needs
- Compete with power generators regarding emission allowances
- Efficiency in nitrogen use and improving of nitrogen recycling

#### Biofuel :

- Recently, bio-fuels came into sight as a promising energy source integrating with the already available energy sources. Hopefully, bio-fuels will play an increasing role in the international energy arena
- International organization need to continue to adopt a soundly –based, common understanding of the limits of both traditional and second – generation biofuels in their analysis of energy futures.
- Priority should be given to research into second – generation biofuels – not only their technologies, but also the assumptions regarding the cost and long-term availability of feedstock.
- Further research is needed to verify the environmental benefits for each biofuel production pathway, feedstock and location and impact on nutrient cycling and fertilizer requirements.

#### Global Fertilizer Markets :

##### Market Situation and Outlook :

- Global fertilizer consumption is seen increasing sharply (+5.0%) in 2006/07, to 164 Mt nutrients while global demand is seen increasing 3.9% in 2007/2008.
- All supply and demand situations will be tight to balance until 2008, due to sustained fertilizer demand. With nitrogen supply growing at a much faster rate than demand in the medium term, a significant urea surplus is likely from 2010. Other nutrient balances will be tight until 2011.

#### The Following Points Covered in Global Fertilizer Supply and Trade Session :

- Impact of gas prices on future Russian and Ukrainian Export to America, Asia, Europe and Africa
- Public policy issues that have the potential to significantly impact on the Australian Fertilizer supply chain partners.
- Development in Natural gas demand/supply and international trade up to 2017.
- The Chinese Fertilizer Industry will continue playing a major role as world's largest exporter of nitrogenous fertilizer
- In Phosphate business the Chinese situation still uncertain due to the critical future development of the global P2O5 picture while China will remain a significant importer of potassium chloride,

#### Global Maritime:

Global Maritime situation during the 2007 weightiness the following:

- Dry bulk shipping freight rates have been reaching unparalleled levels since the beginning of the freight boom in 2003 when seaborne demand growth started to outstrip dry bulk fleet expansion.
- The Dry bulk Baltic Index has increased six fold since the beginning of 2003 to 10,5 by the end of November 2007.

#### In the view of the above :

- Freight increasing trend will continue as long as the growth in seaborne trade outstrips the growth in fleet together with increased inefficiencies in fleet utilisation.
- Accelerated new build contracting as a result of high freight earnings and accumulated wealth  
At the end of the forum, AFA would like to extend its deep thanks and appreciation to the Arab and international companies, institutions and all the attendants for their precious contributions. Wishing that these three days have shed light on the present and future of fertilizer industry world wide.

#### Pannel Session on (Global Maritime Outlook)

##### Pannelists:

**Mr. Jarle Hammer**

Hammer Maritime Strategies Norway

**Dr. Henriette Van Niekerk** - Clarkson's - UK

**Mr. K. Parthasarathi** - OMIFCO - Oman

**Capt. Ranjan Mookherjee**

Int'l Tanker Managing- Dubai

##### Audience:

- Marketing , Trade & Commercial Directors,
- Shipping & Chartering Managers, and
- Terminal / Loading Managers



**DAY 3 :**  
**Session 11:**

**Shipping of Fertilizers: Market Trends and Outlook**

Chairperson: **Mr. Jarle Hammer**,  
Shipping Adviser,  
Hammer Maritime Strategies-Norway

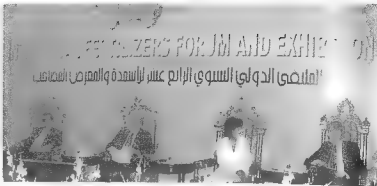
**1- Dry Bulk Shipping for Fertilizers: Market Trends and Outlook**

**Dr. Henriette Van Niekerk**,  
Senior Freight Analyst, Dry Bulk Division  
Clarksons UK

**2- OMIFCO Experience on Ammonia Loading**

**Mr. K. Parthasarathi**,  
Shipping Manager OMIFCO Oman

**3- Transportation & Shipping of Fertilizer & Raw Materials**



**Capt. Ranjan Mookherjee**,  
Operations Manager,  
Int'l Tanker Management Dubai

**CLOSING & RECOMMENDATIONS**

In the light of rapid changes in world economics, agriculture sector and fertilizer industry, the 14th AFA International forum was convened with more than 650 representatives of regional and international fertilizer companies and institutions.

During the three days presentations of highly esteemed speakers focused on major issues related to world food security, energy and fertilizers industry. Major Outcomes of the 3 days forum:

Agriculture Sector :

**On International Level :**

- With the current 850 million of hungry people world-wide enhanced agricultural production is required whereby fertilizer use is a corner stone and producers have to meet this increased demand on fertilizers.
- The trend of change in diet and the increase in world population, although at a lower rate, will require another substantial increase in world food production.
- Fertilizer best management practices must be tailored to site- and crop-specific conditions in order to result in :
  - An efficient and effective use of plant nutrients
  - To provide feed and fiber to an ever growing population.
  - To improve crop quality and food safety
  - To sustain environmental quality
- AFA invite international and regional organizations to coordinate efforts to increase average fertilizer

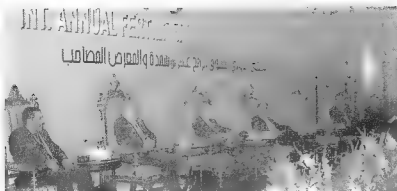
use in Africa from today's 8 kg/ha to 50 kg/ha by 2015 to increase food production, narrow poverty gap and to achieve Africa Green Revolution.

**On Regional Level :**

- The continued food gap in the Arab Region as well as the increasing trend in food prices at the international level call for strategic concerted effort to secure sustainable food security in the Arab Region through :
- Emphasizing the role of food self sufficiency at the country and regional level as a way of mobilization an optimal utilization of the available agricultural resources.
- Enabling environment for encouraging agricultural investment, development of infrastructure, Optimal utilization of irrigated agriculture and strengthening the national agricultural research capabilities to accommodate recent advances in science and technology
- Develop regional plan of Action to pledge political will and common commitment to achieving food security in the region. The plan of action can be translated into regional projects where the different resource and policies are coordinated and integrated.

**Global Fertilizer Policies :**

- Fertilizer industry needs to maintain and redouble its efforts to achieve efficient and safe production in order to respond to :



**DAY 2 :  
Session II:**

**Continue- Global Fertilizer Situation and Outlook**

Chairperson: **Mr. Luc Maene**,  
Director General- IFA  
Reporter : **Mr. Fahad Aldubayan**,  
GM Urea - SABIC-Saudi Arabia

1- Attaining Sustainable Food Security in the Arab Region Strategies & Policies  
**Prof. Ahmed Geneif**,  
Ex. Minister of Agric. /Consultant - Sudan

2- Fertilizer Situation in South Asia and Future Prospects (Pakistan, India, Sri Lanka, Nepal, Bangladesh)  
**Lt Gen. Munir Hafiez**,  
Chief Executive & Managing Director

Fauji Fertilizer Company - Pakistan  
3- New Trends in Plant Nutrition Systems  
**Dr. Terry L. Roberts** ,  
President IPNI - USA

4- Arab Fertilizers: Global Industry Impact  
**Mr. Graham Hoar**,  
Manager, Gas-Based Chemicals & Fertilizers Nexant Chemsystems- UK

5- Overview & Prospects of SABIC Fertilizer Industry in A Global Setting  
**Mr. Fahad Aldubayan**,  
GM Urea Marketing, Sales & Logistics  
SABIC - Saudi Arabia

6- Africa Fertilizer Financing Mechanism  
**Mr. Aly Abou-Sabaa**,  
Director,  
African Development Bank Group



**Mr. Oliver HATFIELD**,  
Director Fertilizers Integer Research - UK  
4- Outlook for Export of Mineral Fertilizers from CIS Countries  
**Mr. Stanislav Chernenko**,  
Project Manager Chem Courier- Ukraine

5- Medium -Term Outlook for Global Fertilizer Demand, Supply and Supply /Demand Balances  
**Mr. Patrick Heffer** ,  
Executive Secretary IFA - France



### DAY 1 Session I :

#### Global Fertilizer Situation and Outlook

Chairperson: **Prof. Ahmed Geneif**,  
Consultant/Ex. Minister of Agriculture (Sudan)  
Reporter : **Dr. Elisio Contini**,  
Director, Ministry of Agriculture- Brazil

- 1- Fertilizer Industry Responses to Global Policy Imperatives  
**Mr. Luc Maene**,  
Director General, IFA - France
- 2- Sustainable Food Security & its Impact on fertilizer Demand  
**Mr. Huub Loffler**,  
Executive Secretary in the Board of the

plant Sciences Group  
Wageningen University-The Netherlands

- 3- Food or Fuel, which Comes First  
**Dr. Elisio Contini**,  
Director Ministry of Agriculture Brazil
- 4- European Fertilizer Policy and its impact on Fertilizer Demand  
**Mr. Esa Härmälä**,  
Director General, EFMA -Belgium
- 5- World Natural Gas Supply / Demand Balance: The Outlook to 2017  
**Dr. Samir Mahmoud ELKareish**,  
Petroleum Ind. Expert - Technical Affairs  
Dept.- OAEPC - Kuwait

### Session III :

#### Global Fertilizer Supply and Trade

Chairperson: **Mr. David Ford**, FIFA Chairman  
Reporter : **Mr. Patrick Heffer**,  
Executive Secretary, IFA

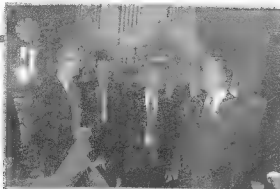
- 1- Australian Fertilizers Industry and its Outlook  
**Mr. David Ford**,  
Chairman & CEO of Impact Fertilizers  
FIFA - Australia



**Mrs. Frances Wollmer**,  
Director Fertilizer & Chemicals Consultancy  
(FCC) - UK

- 2- The Chinese fertilizer Industry & Future Outlook

- 3- An Assessment of the Global Impact of Biofuels on World NP and K Markets



including the Shamrock Vertical Blender, the Kraus, Smithbuilt and Tower Blender Lines; and used, re-conditioned machines, both from the Doyle range and from other suppliers.

Projects undertaken in 2006: include contracts in Morocco, Egypt, Russia, France, Germany, Ireland and The Netherlands.

### ***Verbrugge Terneuzen Terminals b.v. (The Netherlands)***

Zwedenweg 1 – Port number 1361

P.O. Box: 5

4530 Terneuzen - [www.verbrugge.nl](http://www.verbrugge.nl)

One of the leading logistic services providers located in the ports of Vlissingen (Flushing) and Terneuzen. Verbrugge Terminals handles a total volume of over 10 million tons per year. Our aim is to be the preferred partner in logistic services in a selective number of product markets with a key focus on customer service and reliability. As one can see in the details of the different companies (link) of Verbrugge Terminals, we mainly focus on bulk products, paper and woodpulp, timber, steel and metals, cars and Roro. We also offer a wide range of key support services, amongst others, short- and deepsea chartering, port agency, cargo agency, liner agency, freight forwarding and customs services.

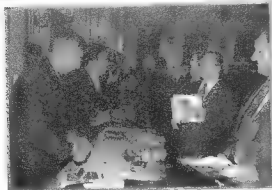


### ***Yargus Manufacturing, Inc. (USA)***

[www.yargus.com](http://www.yargus.com)

[anne@yargus.com](mailto:anne@yargus.com)

YARGUS Manufacturing, producer of Layco Products, located in Marshall, IL, USA, is a leading supplier of bulk blending and material handling equipment throughout the world. Yargus continually installs a variety of blending systems ranging from a single unit blend system to a high tonnage blending and bagging plant to a 1,200 ton per hour receiving system. Yargus can customize a bulk blending plant to fit your exact blending, bagging and receiving needs.



anticaking for Ammonium Nitrate, CAN, NPK, DAP and Urea are being used in a number of fertilizer industries worldwide.

NEELAM AQUA has developed very effective dust suppressors for granular urea. Another novel innovation of Neelam Aqua is compound for "Solve release of Nitrogen" from Urea. It increases the efficiency of urea many times.

#### ***MITRA S K Pvt Ltd - India***

Mitra S K Pvt Ltd is a global name in the field of Inspection and Testing of Mineral & Fertilizer through the presence in different strategic locations. A seal of MSK is synonymous with Quality».

#### ***OLMI S.p.A. - Italy***

OLMI SPA started manufacturing Urea strippers, carbamate condensers in 1987 and over the years has supplied 10 strippers to Snamprogetti process with 5 bimetallic ones to the latest Snamprogetti's Technology. (Heaviest manufactured stripper with 2680 tubes weighing 120 tons).

OLMI SPA started manufacturing Melamine equipment in 1986 and over the years has supplied 9 Hastelloy Reactors and Scrubbers for Melamine Units. Email" sales@OLMI.IT Web site: WWW.OLMI.COM

#### ***The Arab Potash Co. - APC - Jordan***

APC is a pan Arab joint venture with current annual sales of 400 million dollars. Among its shareholders is Potashcorp of Canada. It is involved in the production of Dead Sea minerals and fertilizers. The annual production is 2.0 million tons of various forms of potash plus table & industrial salts.

Potash production began in 1983 and projects are underway to expand the solar evaporation system and thus raise the capacity to 2.5 million tons of product by the year 2008. APC has been successfully marketing its product of the three grades; Standard, Fine and Granular in markets around the globe. APC also produces Industrial Grade product for the chemical industry.

APC produces 150.000MT per year of granular MOP, and its industrial Potash capacity is around 100.000 MT.

Email: sales@arabpotash.com Web site: www.arabpotash.com

#### ***European Machine Trading (EMT)- The Netherlands***

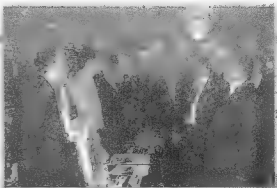
Email:emt@e-m-t.nl

Website: www.e-m-t.nl

Company Profile:

European Machine Trading is a producer of blending and bagging equipment based in the Netherlands.

A wide range of bagging and blending equipment and associated inline transportation equipment, such as conveyors, for use within the fertilizer industry. Bulk blending equipment lines: include EMT's own Weighcont Blender (20 tph to 200 tph capacity), which works on the principal of Weighing Continuous Blending; the Doyle Equipment product range.



### **ARESCO ASEC (Egypt)**

Eng. Nihad El Gawish, General Manager Engineers  
Affairs Dept  
E-mail: [n.gawish@aresco.com.eg](mailto:n.gawish@aresco.com.eg)

### **TECOFI France "To discover the best quality industrial valves" - France**

TECOFI is a French manufacturer of industrial valves. TECOFI has got the unique technical solution for phosphoric acid: cast iron 30% CHROMIUM DIAPHRAGM valve weir or straight through type - The valve that lasts LONGER!

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### **Uhde GmbH - Germany**

E-Mail: [ammonia.uhde@thyssenkrupp.com](mailto:ammonia.uhde@thyssenkrupp.com)  
[urea.uhde@thyssenkrupp.com](mailto:urea.uhde@thyssenkrupp.com)  
[nitrates.uhde@thyssenkrupp.com](mailto:nitrates.uhde@thyssenkrupp.com)

Uhde is a company in the Technologies segment of the ThyssenKrupp Group and has a workforce of more than 4,100 employees worldwide. The company's activities focus on the engineering and construction of chemical and other industrial plants in the following fields: fertilisers; electrolysis; gas technologies; oil, coal and residue gasification; refining technologies; organic intermediates, polymers and synthetic fibres; and also coke plant and high-pressure technologies.

Uhde is a leading supplier of fertiliser production technologies and complete fertiliser plants, and

has outstanding experience in the Middle East and North Africa.

### **Sud-Chemie AG - Germany**

Email: [fredi.kalt@sud-chemie.com](mailto:fredi.kalt@sud-chemie.com)  
Web site: [www.sued-chemie.com](http://www.sued-chemie.com)  
Company Profile:

With more than 60 manufacturing and marketing companies the SUD-CHEMIE Group is represented in almost every region of the globe. The SUD-CHEMIE Group companies hold a leading position in markets around the world offering a wide range of catalysts for the chemical, petrochemical and fertilizer industries, for refineries, the food industry and for environmental technology.

### **RS Trading GmbH (Germany)**

Email: [info@rs-trading-gmbh.com](mailto:info@rs-trading-gmbh.com)  
[www.rs-trading-gmbh.com](http://www.rs-trading-gmbh.com)  
Company profile:

RS- Fertilizer Blending and Handling equipment.

### **Neelam Aqua & Specialty Chem. (P) Ltd. - India**

NEELAM AQUA & SPECIALITY CHEM is a 27 year old company in the field of fertilizer Anticaking and specialty Chemicals for the fertilizer industry. It has very good R & D lab to solve the problems related to the fertilizer industries. The specialized





### **Aqua Trust for Water Treatment Co. - Egypt**

Email: [aqua@aquatrust.net](mailto:aqua@aquatrust.net)

Web site: [www.aquatrust.netfirms.com](http://www.aquatrust.netfirms.com)

The company activities:

- Solutions of all the problems related to the water industries.
- Design and tailor - made water treatment programs with unlimited possibilities by using a completely new reliable types of chemicals to prevent corrosion / scaling/ fouling.
- Aqua Trust applies a uniquely adaptable on stream cooling water systems cleaning to remove deposit and scales within 48 hours, from the entire systems without the need of shut-down and off-stream boiler cleaning.
- Follow-up of the treatment program at the customer - site.
- Advanced analysis and measurements carried out in Aqua Trust R and D labs and Science Center for Detection & Remediation of Environmental Hazards (SCDREH) Azhar University, through the mutual protocol of cooperation between SCDREH and Aqua Trust.
- Training and seminars- Aqua Trust participates and co-ordinates the Aqua Tec and Egyptian society of corrosion of metals annual conferences, as well as holding seminars at customers- site for water treatment technologies.

### **Ibramar Shipping Co.**

Email: [cairo@ibramar.com.eg](mailto:cairo@ibramar.com.eg)

Company Profile:

Ship Agents - Spareparts clearance - Bunker & lube supply - Yacht services - Kraftmar container line agents - Crew change - Stevedoring - Storage and warehousing services - Land transportation - Customs clearance - Airfreight - Seafreight - Shipping - Chartering - Dry cargo etc..



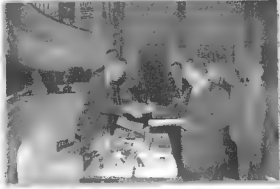
### **The Egyptian Salts & Minerals Co. in Fayoum EMISAL - Egypt**

EMISAL was established in 1984 under the Egyptian Investment Law no. 43 for the year 1974. The company capital is L.E. 76.25 million shared between the National Bank of Egypt, the Bank of Alexandria, the National Investment Bank, the Chemical Industries Company (EHC), the Egyptian Re-Insurance Company, the Industrial Development Bank and the Services Fund of the Fayoum Governorate.

### **SPREA MISR -- Egypt**

SPREA MISR a leading chemicals and plastics manufacture company and was focusing from the first day on producing a high quality product according to strict quality control procedures, which are being undertaken in our industrial complex located in the biggest industrial city in Egypt (10th of Ramadan city) about 63 km east north of Cairo. Sprea Misr facilities include 5 major factories to produce the following products:

Aqueous formaldehyde solution - urea formaldehyde concentrate - urea formaldehyde liquid glue - urea formaldehyde powder resin - Melamine formaldehyde powder resin - urea moulding compound - melamine moulding compound - phenolic moulding compound.



Asia & Africa.

- Yearly turnover US\$ 100 million

**Phase II:**

- Production started on 3rd quarter of 2006.

### **Helwan Fertilizers Co. Free Zone - Egypt**

E-mail: hfc01@hfcegypt.com

The plant name plate capacity is:

2000 m.t.p.d. Granular Urea and

1200 m.t.p.d. Anhydrous ammonia.

Production started on 09.03.2007.

### **The National Company for Mining and Quarries « El Wataneya » - Egypt**

« El Wataneya » company working in the field of mining various grades of phosphate rock and marketing it for the local and international markets so that we export to different Asian and European countries .

We have different mines working in between the li-

cense of usage, search and the company owning a variety of equipments and machinery that help in the processes of mining, preparation and concentration of the various types of mined raw materials.

We are now finalizing the legal licenses to implement a new factory for Al Wataneya to manufacture various types of phosphate fertilizers in Aswan governorate.

We are offering the preparation of various feasibility studies in the starting of some important mining projects related to the company such as mining and concentration of ilmenite, iron, kaolin and quartz (throughout the four group smelters in Hamrawien area) .

### **Banque Misr - Egypt**

Fax: +20-2 37485462

Email: hfayek@banquemisr.com.eg

General Manager of Credit Sector & Member of Executive Committee: Mrs. Hala Fayek

Banque profile: Financing the projects of fertilizers.

# AFA Exhibitors



## **Gulf Petrochemical Industries Company (GPIC) - Bahrain**

GPIC was established in December 1979 as a joint venture for the manufacture of fertilizers and petrochemicals. The joint venture is equally owned by the Government of the Kingdom of Bahrain, Saudi Basic Industries Corporation (SABIC), and Petrochemical Industries Company (PIC), Kuwait.

GPIC uses Bahrain natural gas as a feedstock for the production of 400,000 tones per annum Ammonia, 600,000 tones per annum of Granular Urea, and 400,000 tones per annum of Methanol. In addition to the production plants, GPIC Complex which is located in Sitra on a reclaimed area of 60 hectares comprises utilities plants, maintenance workshops, offices, stores, laboratories and operates a dedicated urea export terminal.

## **NEELAM America Quimica Ltda - (Brazil)**

Email: avdesh@neelamamerica.com  
Fax: +55-5132460891

## **Abu Qir Fertilizer Co. - AFC - Egypt**

AFC is the biggest nitrogen fertilizers producer in Egypt (with about 70% local market shares).

AFC is a main shareholder of two new Egyptian fertilizer producers namely:-

- Alexandria Fertilizer Co. (Alexfert) 20% share.
- Helwan Fertilizers Co. 17% share.

AFC diversify its product mix to satisfy customer needs. That was why AFC launched during the past 2 years two new units within its premises in Abu Qir, Alexandria. The first is for the production of Bulk Blended fertilizers (NPK) with a yearly capacity of 200 thousands MTS & it started production in Jan. 2006. As for the second unit it is for the production of UAN (Urea Ammonium Nitrate solution) with a yearly capacity of 300 thousands MTS & it started production in Oct. 2006.



## **Abu Zaabal Fertilizer & Chemical Co. - AZFC - Egypt**

AZFC is one of the two manufacturers of SSP (Powder & Granulated) fertilizer and the sole manufacturer of TSP (Granulated) & Phosphoric Acid in Egypt. In addition to producing Sulfuric Acid. AZFC is one of the oldest Egyptian Industrial companies; it was established in 1974 and nationalized in 1961 & was working under the umbrella of the Chemical Holding Company. In 2002 has been privatized.

## **Egyptian Fertilizer Company - EFC**

EFC is a Private sector.

Web site: [www.efcsae.com](http://www.efcsae.com)

Activities:

Production and marketing of all sorts of chemical fertilizers and derivatives.

### **Phase I:**

- \* Production started on Sept. 2000
- \* Yearly production capacities: -
- 635,000 MT Granular Urea fertilizers
- 400,000 MT Liquid Ammonia

### **Marketing:**

- As export oriented company, EFC distributes its urea product all over the world, USA, Canada, Europe,

For supporting and backing AFA activities, AFA extends its deep appreciation to **H.E. Dr. Ahmed Guwaly**, (1) Secretary General of the Council of Arab Economic Unity.

In recognition of its fruitful efforts to fulfill AFA goals during his chairmanship of AFA Board of Directors, Arab Fertilizer Association honored during the inauguration session, **Dr. Nizar Fallouh**, (2)

AF A honored **Dr. Mohamed Abdel Rahman Al-Terkait**, (3) who was member in AF A Board of Directors representing AFA Kuwaiti member companies.

AFA extends deep appreciation to Chairmen of AFA Egyptian member companies for supporting and backing AFA activities in general and 14th AFA Intl. Fertilizers Forum in particular and they are as follows:

(4) **Eng. Mohamed A. El-Mouzi**

Chairman & MD, Chemical Industries Holding Co.

(5) **Mr. Yehya Kotb**

Chairman & MD, Egyptian Financial & Industrial Co. (EFIC)

(6) **Eng. Ali M. Ghoneim**

Chairman & MD, Delta Fertilizer Co.

(7) **Mr. Mohamed Abdallah**

Chairman & MD, Abu Qir Fertilizer Co. (AFC)

(8) **Eng. Mostafa Kamel**,

General Manager Egyptian Fertilizer Co. (EFC).

(9) **Eng. Oasma El-Ganainy**

Chairman & MD, Alexandria Fertilizer Co.

(10) **Eng. Mohamed A. El-Danaf**

Chairman & MD, Helwan Fertilizer Co.

(11) **Eng. Yehya Mashaly**

Chairman & MD, Egyptian Chemical Industries Co. (KIMA)

(12) **Dr. Sherif El-Gabaly**

Chairman & MD, Abu Zaabal Fertilizer & Chemical Co.

(13) **Eng. Majed Yassin**

Chairman & MD, Aqua Trust for Water Treatment Co.

(14) **Eng. Nagah Farghaly**,

Chairman & MD - El Nasr Mining Company

Arab Fertilizer Association honored during the inauguration session **Eng. Mostafa Kamel**, (15) Chairman of AFA Technical Committee during 2006-2007 and **Eng. Faisal Doudin**, (16) Chairman of AFA Economic Committee for the same period.



# Thanks & Appreciation





## Dr. Ali Masmoudi Wins 2007 AFA Award

Arab Fertilizer Association (AFA) extends its warmest congratulations to **Dr. Ali Masmoudi** from Biskra University (Algeria) the recipient of 2007 AFA Award. Dr. Masmoudi was invited and honored in the opening ceremony of the 14th AFA Int'l. Annual Fertilizers Forum.

**Dr. Ali Masmoudi** is a Teacher Searcher - Agronomy Pedology and his domain of research: pedology, fertilization, irrigation and salinity of water and soils. Dr. Masmoudi is the President of scientific committee of department of agronomy at Biskra University (Algeria). He is a member of research project team of ASCAD with North Africa countries on use of saline water in agriculture 2001 - 2005. He is the Head of research project of Ministry of Superior Education in Algeria on rise of water and salinization of soils in oasis of Ziban 2006 - 2008.

The winning research submitted by Dr. Masmoudi is entitled: "Experimental Study on the Efficiency of Phosphate Rock Compared to the TSP in the Fertilization of SAHARAN Soil"

Within the framework of the intensification of research on the direct use of phosphate rock in agriculture in order to be able to arrive at a better exploitation of this product as fertilizer. We fixed

as objective in this work to study the effectiveness of the RP in the phosphate fertilization of irrigated Saharan soil and the conditions of its use in Saharan agriculture in comparison with the TSP. For this purpose we adopted trials in field and others in pots of vegetation with various amounts of RP and TSP, which are carried out with crop of barley or without plant and in presence or absence of the organic matter.

Results obtained through the studied parameters that bound to the soil or the plant such as: assimilable phosphorus, total phosphorus, fractionation of phosphorus, content of the plant of  $P_2O_5$ , grain yield, and weight of 1000 grains, showed that: the TSP thanks to its high solubility has a fast action and gives the best results in short-term (tillering stage).

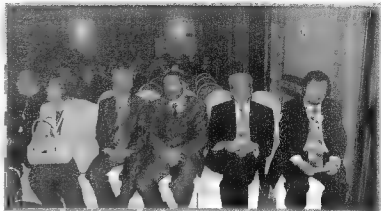
While the action of RP is slow and modest at this stage, but it in the long term becomes very positive especially in the presence of the organic matter what returns very near the effects of two manures. The organic matter improved the effect of the two phosphate fertilizers in particular the RP. Certain factors intervening such as the rhizosphere, the hydrous mode and the micro-organisms strongly supported the effectiveness of the RP by a remarkable effect on its solubility following a favorable moisture and released acid substances.

AFA Secretary General added that the development of Arab agricultural sector is considered a must, as Arab food security present and future are so much related to agriculture future according to an Arab integrated agricultural concept, bearing in mind that the region is an integrated economic unit. Concerning the available agricultural resources in the region, they are represented in agricultural lands and rain quantities, which prepare the region to provide food needs. Arable lands are estimated by 198 million hectare, 69 million hectare of which are landed. As for the rainfall average in the Arab region, it is estimated by 2285 billion meter square annually, and the underground fresh water reserve is estimated by 7734 billion meter square while the total water resources used in agriculture reach about 169 billion meter square. Therefore, Dr. Ashkar said the abovementioned requires exerting concerted efforts and setting water and extension policies capable of maintaining and making use of available water amounts. Besides, employing these policies practically to increase agricultural lands, maximize the utilization of the available lands and using different fertilizers to raise the agricultural returns horizontally and vertically, thus, leading to tangible economic growth and development. In fact, there are some determinants that obstruct the development of regional agricultural sector, important of which :

1. Insufficient attracting legislations in the agricultural field: investment attracting legislations in agriculture field are below the ambitions of investors and in need for development, especially in countries of huge areas and good water resources, at the top of which Sudan and Egypt.
2. Poor agricultural technologies usage: such is manifested via cereals productivity in the Arab region, reaching 1.7 Ton/Hectare against 5.6 Ton/Hectare in the United States.
3. Poor infrastructure: (for example roads, transportation, storage, banking system ...etc.) directly and adversely reflected on agricultural and marketing systems.
4. Limited production added value: most of the agricultural products are considered major raw materials supporting the agricultural manufacturing chain or being used in transformational food industries or other transformational industries such as bio-fuels, which represent a great challenge facing developing countries endangering food security.

The following question strongly arises in this regard: Food or Fuel ... Which comes first?

Recently, bio-fuels came into sight as a promising energy source integrating with the already available energy sources, and will play an increasing role in the international energy arena, during the coming phase, expected to fulfill 20% of the international demand volume on energy by 2030, reaching about 36 MT while it represents around 8MT for the time being.



In the light of the international direction, towards increasing bio-fuels production, it is expected that demand on N.P.K. will increase with an amount exceeding 4% of the existing international demand, to reach:  
 -171 M/T during 2007-2008  
 - 176 M/T during 2008-2009  
 - 195-205 M/T by 2016

That is to say reaching an increase of 40% in comparison with current demand rates. Such is a result of the international direction to produce more and more agricultural crops required for food and used in bio-fuel production. Consequently, the previously mentioned will naturally lead to the emergence of extra productive energies to face the annually growing demand and will encourage the countries with required raw materials and feed stock to push forward in the said direction.

Thus, the International Conference is convened in the shed of specific circumstances of international control and directions related to food security promotion via infrastructure investment that serves agricultural sector.

In addition, there are efforts exerted to raise the awareness on mineral fertilizers usage- inevitably necessary to increase agricultural productivity of grown lands and extract high yield strains in order to be in line with the international direction and achieve agricultural production and food abundance.

On the level of supporting green revolution in Africa, AFA is completely aware of African market importance, thus, attended and fostered Africa Summit, held in Nigeria in 2006, and adopted such a significant summit recommendations, which raised the slogan of Africa Green Revolution coinciding with the efforts of all concerned international organizations. AFA was further keen to follow up the summit proceedings and participate in meetings and gatherings, to set a practical mechanism in order to achieve the referred to goal and increase countries capability for agriculture sector sustainable development. Bearing in mind, when doing so, the African market strategic and geographic dimension in Arab fertilizer industry and trade,

## Dr. Ashkar:

### The Food Provision is One of the Human Rights that Should be Provided Without Exclusion or Discrimination.



H.E. Dr. Shafik Ashkar, AFA Secretary General started his speech by extending his thanks to the Arab Republic of Egypt Government for continuously fostering AFA activities and proceedings held on the cherished land of Egypt, the matter that is clearly reflected on the great attendance of parties interested in fertilizer industry and trade from all over the world.

Dr. Ashkar pointed in his speech that the gathering in the 14th International AFA Conference, in the shed of the current world economic transformations, reflects our concern and keenness to face many challenges. Challenges that affect food security and energy provision required for the achievement of sustainable growth in all sectors, at the top of which fertilizer industry sector that is deeply related to international food industry and security. He added that the food provision is one of the human rights that should be provided without exclusion or discrimination. Therefore, the non-fulfillment of the said right is considered a serious violation for human dignity principles. Hunger and poverty of nearly 854 million people, on the world level, despite of food surplus, is a form of negligence with respect to all humanity. Hunger is not an inevitable destiny. It could be combated via developed wise policies and sincere and effective cooperation with developing countries

governments, which are expected to put food security as one of the major economic and social development priorities.

Dr. Ashkar mentioned that on the regional level, the achievement of Arab food security broad concept is a strategic goal and goes in line with the international exerted efforts, heading to reducing hungry people, in the world, to half by the year 2015. This concept is represented in providing essential food goods, enabling Arab citizens to receive such goods with acceptable prices and taking in consideration food quality and safety through the development of regional agricultural potentials and the integration of material and human resources.

The following table pinpoints Arab food security reality and the self sufficiency rates of essential goods, clearly and bluntly indicates that there is a lots of good planning to be done to narrow the gap.

Goods	Self Sufficiency %
Cereals	56
Red Meat	87
White Meat	75
Dairy Products	70
Edible oils	31
Sugar	35





## Eng. Mouzi

### calls for Coordinating and Planning The Establishment of Common Projects Related to Fertilizer Trade & Industry To meet the expected Demand during the coming decades



H.E. Eng. Mohamed Adel El-Mouzi, Egyptian fertilizer industry representative in AFA and the Chairman & Managing Director of the Holding Company for Chemical Industries, delivered an speech in the opening ceremony of the International Forum - which is being held annually since 1995 in Egypt, became one of the most important events on the international fertilizer agenda and occupied a distinguished status on the international level, hence, people working in fertilizer industry and trade are always keen to attend such a Conference reaching more than 600 participants from all over the world. Eng. El-Mouzi highlighted in his speech the distinguished status reached by Arab fertilizer industry, on the regional and international levels, through its state-of-the-art production capacity and trained human cadres, which are the bases for the promotion of such an industry. H.E. Mr. El-Mouzi also underscored in his speech the many economic changes witnessed, now, by the world in addition to the big countries direction - such as USA, Europe, Japan, Australia and Brazil - toward diversifying alternative energy sources as a result of the unprecedented rise in oil prices exceeding \$100 per barrel. These countries are heading to produce bio-fuel for example ethanol and bio-diesel from the different agricultural products for instance maize, sugar and plant oils. Therefore, such efforts were reflected on the increase in the expected fertilizers demand, the matter shown in the unprecedented rise in the prices of the different fertilizer materials and products. So, it requires coordination and planning for the establishment of common projects in the field of fertilizer trade and industry to meet the said expected demand during the coming decades in a way maximizing the returns and organizing competition in expected markets importing fertilizers from the Arab region.

Eng. El-Mouzi further added that gathering in the International Conference opening ceremony reflects a general desire to develop such an important strategic industry for being the indispensable main entrance to the agriculture sector. It is worth mentioning that the role of fertilizer industry will maximize in future, as it contributed with more than 50% in increasing agricultural productivity during the last decades. This role will continue, in the light of the current transformation to bio-fuel production in addition to the major direction to contribute in bridging the current food gap and achieving the anticipated food security for the Arab region and the world in general.

Moreover, H.E. tackled fertilizer industry in Egypt, which is witnessing huge development via the established projects, during the last five year, besides the under-establishment and planned to be established projects, during the coming five years.

Egypt production exceeded, during 2007, 3 million tons of ammonia, 3.7 million tons of urea, 1 million ton of ammonium nitrates, 2 million tons of phosphate rocks and 1.5 million tons of super uni-phosphate together with other amounts of super tri-phosphate, phosphoric acid and ammonium sulfate. Moreover, by completing the under-implementation and under-study projects the production capacities will increase with reference to ammonia, urea, super phosphate fertilizer and phosphoric acid in Egypt during the coming eight years.



## Eng. Al-Sowaidi

**calls upon such an industry that try to  
concentrate efforts on the Arab & in-  
ternational levels to foster the economy  
and enhance international food security**



H.E. Khalfā

Al-Sowaidi,

AFA Chairman

delivered a welcome  
speech in the Forum

Opening in which he extended  
his thanks to Arab Republic of

Egypt sponsoring to such an in-  
ternational event reflects the Con-

ference importance regionally and  
internationally and highlights the in-

ternationally distinguished status occupied by  
Arab fertilizer industry and trade. It also pin-

points the fertilizer exports advanced position in  
international markets.

Eng. Al-Sowaidi declared that AFA during a 32-year track started in 1975, has been setting different mechanisms and programs according to the developments and challenges facing fertilizer industry and trade, which are translated in the Association annual plan. AFA takes in consideration all international changes touching on the required needs to enhance Arab fertilizer industry and consults experts and member companies aiming at raising efficiency, improving performance, identifying all new developments in fertilizer industry, providing information and data and exchanging experiences between members.

AFA Chairman added that AFA adopts a strategy and vision depending mainly on the necessity of activating the Association role based on the status acquired regionally and internationally and in line with the international efforts. Such efforts head to developing countries sustainable development and capabilities enhancement in order to cope with international developments and pressures, namely, the increase in energy prices and switching to alternative energy production, such as bio-fuels, via employing agricultural products (wheat, corn, sugar, vegetable oil) to produce ethanol and bio-diesel. All these efforts are reflected on agricultural development, thus, achieving the required food security through the following:

1. Increasing the extension and awareness activities concerning the best usage of mineral fertilizers different forms and components (micro and macro) in complete balance, during the different phases of plants growth. The former activities have huge return on agricultural productivity integrated with

the efforts exerted by concerned international and regional organizations, associations and research centers.

2. Maintaining and protecting environment in all phases of extraction, production and usage to serve the concept of sustainable industrial development.
3. Paying due concern to sustainable human development through the different kinds of information presented in conferences, seminars and specialized workshops, in which experiences are exchanged. Our Conference, today, is a clear manifestation of the said concept.
4. Strengthening the direct relationship with the end beneficiary (farmer) in the Arab region.
5. Entrenching work with concerned Arab and international organizations to achieve such a goal, at the top of which FAO, IFA, IFDC, IPI, IMPHOS, AOAD and IPNI aiming at interacting with international efforts targeting food security achievement on the Arab and international levels.
6. Encouraging applied scientific research via AFA \$ 5000 annual award given to the best applied research, since 2003, in the field of fertilizer usage, environment protection, fertilizer specifications and production technology improvement heading to reducing fertilizers final cost. The 2007 award winner will be declared during the ceremony.
7. Providing another annual award for the best applied work in the field of safety, health and environment in the Arab factories, as of 2008.
8. Boosting inter-industrial integration among member states working in such an industry reaching the establishment of an integrated industrial base and raising the level of commercial exchange of fertilizer products and inputs.
9. Seeking industrial technology transfer through establishing specialized centers in order to supply Arab markets with trained efficiencies to cope with the latest developments.
10. Increasing fertilizer production through different projects to fulfill the market needs and provide food security.

At the end, AFA Chairman calls upon such an industry masters to concert more efforts on the Arab and international levels to foster the economy and enhance international food security.

## Dr. Guwaly:

# Greater Arab Free Trade Zone is the largest Economic Achievement Achieved by Arabs in the Modern Age



His Excellency Dr. Ahmed Guwaly, Secretary General of the Council of Arab Economic Unity, inaugurated the 14th AFA International Forum with a speech, in which he expressed his happiness of the honored gathering and the distinguished elite of fertilizer industry concerned parties from Arab countries and other countries from all over the world. They all meet in such an International Conference organized by one of the most important Arab associations, working in the scope of the Council of Arab Economic Unity, which honors its activities, glorifies its achievements and support its track. The Conference is convened early 2008, a year in which positive indicators appear raising hopes of being the Arab Economy Year, thus, wishes prevail of accomplishing true achievements heading to Arab economic integration and bearing all good to Arab countries. With reference to the former indicators, the Arab political discourse reflects a more positive Arab situation concerning the economic issue and entrenching the common economic interests. To elaborate, all Arab leaders emphasize, in each and every occasion, on the importance of rapidly establishing the common Arab market and Arab economic blocs, for being the only way to achieve the comprehensive development of all Arab countries and to face the internal and external problems and challenges from which Arab countries economies suffer, at the top of which the problems of poverty, unemployment, food security, development rates drop and per capita income decrease. His Excellency Secretary General of the Council of Arab Economic Unity mentioned that the positive indicators further include economic reform measures applied in most of the Arab countries, heading to free market policy, opening to international economy and following policies and taking procedures that encourage local, Arab and international investment, thus, making the Arab atmosphere more attractive to investment, after being, for a long time, repelling to investment. Moreover, the most important indicator of all is completing the stages of exchanging goods full liberation between Arab countries via starting the implementation of the greater free trade zone, which includes, until now, 17 Arab countries agreeing upon eliminating all customs and non-customs barriers, before the commercial exchange between them, starting from early 2008.

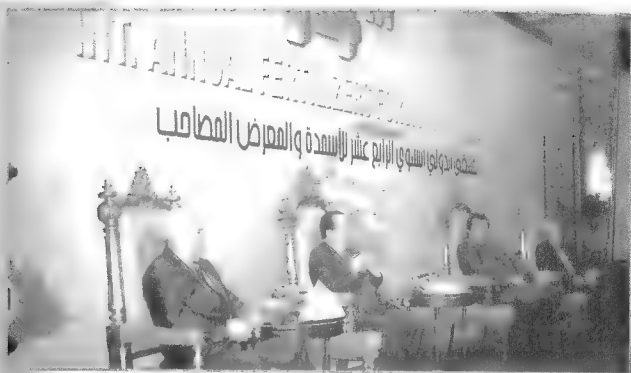
H.E. Dr. Guwaly clarified that the greater Arab free trade zone represents the largest economic achievement accomplished by the Arabs in the modern age and the actual and tangible step in the way of Arab economic integration and economic unity. Therefore, all parties look forward to the commitment of all Arab countries to implement such an agreement to achieve an inter-Arab trade boom through one market comprising 300 million consumers. Dr. Guwaly added that they hope, in a short time, to con-

clude a similar agreement to liberalize trade in services between the Arab countries; it is noteworthy that the Economic Council of the Arab League has taken good steps in such a direction. However, he further asserted that what has been accomplished in the scope of the greater Arab free trade zone is not the final stage but the starting point to move forward to following stages that should be completed. In addition, the practical implementation of the full exemption for the inter-good exchange will for sure lead to some problems and face some obstacles that should be strenuously handled. Other necessary steps should be also taken at the top of which agreeing on detailed origin rules for industrial goods, adopting a number of facilitations in the field of transportation and assisting the less developed Arab countries in joining the said agreement.

In relation to the Council of Arab Economic Unity role in the Arab economic work track, Dr. Guwaly pinpointed that the Council has set a strategy for the Arab economy integration for the coming two decades (2020). In accordance with the former strategy and starting from 2008, a custom union was formed between the Arab countries on several stages that will extend till 2015, as the custom duties are to be unified in the countries that will agree to join such a union. During 2015-2020, which is the common market stage, more coordination will take place between Arab policies including financial and monetary policy and the establishment of an Arab investment zone, technological zone and citizenship zone. In 2020, policies are to be united especially the monetary and financial policy, a central bank is to be established and an Arab united currency is to be issued, which is a phase known as economic unity phase. HE also mentioned the accumulative work, that is to say building on the existing achievements to resume the march, ignoring the emotional side and concentrating on the achievement of common interests. Hence, in such a context the actual reform entry in the Arab countries is the economy and the economic reform is the one that should be called and worked for, as it will lead to the comprehensive reform. Dr. Guwaly further called for convening an Arab economic summit tackling only the economic issues and the necessity of agreeing on a clear Arab economic strategy, which is not affected by the political crisis.



AFA Board council members, VIPs & delegates during the opening session



# 14<sup>th</sup> AFA Int'l. Annual Fertilizers Forum & Exhibition

5 - 7 February 2008 - Cairo Marriott Hotel

In the light of such changes, the 14th AFA International Annual Fertilizers Forum is held under the title «Fertilizer March – Where to?» Food / Biofuel - Which comes first?» The Conference is convened to cope with the referred to changes and reflects the keenness of people working in fertilizer industry on facing the positive and negative impacts of these challenges on food security and providing required energy for sustainable development together with fertilizer industry to develop all forms of agriculture. The attendance of 605 participants in the

Forum, from 50 countries, reflects AFA efforts to make the event more comprehensive in order to be one of the most important specialized economic events, on the international level. Thus, Arab and international associations, companies, institutions and organizations working in fertilizer and agriculture industry, trade and transportation fields besides experts from regional and international universities and research centers are all eager to attend the Forum.

# ***Fertilizers Industry : Technology Development & Environmental Protection***

Arab Fertilizer Association is pleased to announce that the 21st AFA International Fertilizers Technical Conference will take place in Jeddah, Saudi Arabia during the period: November 10 – 12, 2008 in association with the Saudi Basic Industries Corporation (SABIC).

This Conference organized by AFA is specifically designed for representatives of fertilizer companies interested in the latest developments and driving issues in the fertilizer industry with regard to production technology, health, safety and environment (HSE) and related subjects.

It worth saying that this conference is the largest fertilizer technical conference normally held in the Middle- East where you can meet all producers, traders and interested parties in fertilizer industry from all over the world.

## ***Program and Topics:***

The Conference will cover the following tracks:

### **Track 1 : Best Available Technology:**

- BAT for production of : Nitrogenous, Phosphatic, Potassic and intermediate fertilizer
- New Development in Fertilizers Industry
- Chemicals & Catalysts

### **Track 2: Operations and Equipment:**

- Maintenance troubleshooting and problem solving.
- Materials Selection and Upgrading
- Improvements in packaging, materials handling, and distribution systems.
- Control Systems
- Case Studies

### **Track3: Fertilizers Industry and Environment**

- Available Techniques for Pollution Prevention and Control for Fertilizer Production
- Health, Safety and Environment (HSE)
- Water Conservation
- Technology Prospects for Increased Energy Efficiency
- Raw materials and energy consumption auditing (field measuring).
- Quality assurance methods and programs.
- Case Studies

The conference programme and new confirmed speakers will be regularly updated on the conference website: [www.afa.com.eg](http://www.afa.com.eg)

## ***Conference Exhibition***

Organized by Arab Fertilizer Association (AFA):  
November 10 – 12, 2008

Venue: Pre-Function Area - Jeddah Hilton Hotel,  
Saudi Arabia

AFA Exhibition offers an unrivalled forum for companies to present their latest products, services or technology to potential customers and to reinforce relationships with existing clients.

## ***Advertising Brochure***

A Colored advertising brochure size A4 normally distributed to all delegates and VIP guests during the conference with very special rates.

## ***Important***

Delegate needs entry visa to Kingdom of Saudi Arabia to attend the Conference should provide afa with details and a good copy of passport to allow SABIC to act accordingly:

- Passport should be valid for six months.
- Applied should not be later than 20/9/2008.

Look for registration materials in your mailbox and on AFA's web site: [www.afa.com.eg](http://www.afa.com.eg)



JOIN US AT THE

**st**



**AFA International Fertilizers Technical  
Conference & Exhibition**

November 10 - 12, 2006  
Jeddah Hilton Hotel, Saudi Arabia

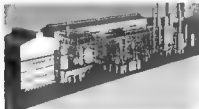


In keeping with its company motto **Engineering with ideas**, Uhde delivers innovative solutions for each specific task in the fertiliser industry, be it for the production of ammonia, nitric acid, urea or various other fertilisers.

Based on recent experience in designing, constructing and commissioning the 3,300 mtpd dual-pressure ammonia plant for SAFCO in Saudi Arabia, Uhde offers proven mega-scale ammonia plants. The excellent performance and availability of the SAFCO unit have played a key role in the award of the first follow-up order of another 3,300 mtpd ammonia plant for Maaden in Saudi Arabia.



Ammonia plant, available today 4,250 mtpd ammonia



Urea granulation plant, available today 4,250 mtpd ammonia

With regard to urea granulation the ThyssenKrupp subsidiary Uhde Fertilizer Technology B.V. now owns the licence for the renowned Yara Fluid Bed Urea Granulation and offers this technology to the worldwide fertiliser market.

Complemented by the urea synthesis technology of Stamcarbon B.V., Uhde is now able to provide single-train fertiliser complexes of up to 4,250 mtpd of ammonia and 5,000 mtpd of urea.

**ACHEMIA 2009**

Frankfurt a.M., May 11 - 15, 2009,  
Hall 9.1, Stand H33 - J40

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# Arab Fertilizers

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The articles and all material contained herein do not necessarily represent the view of AFA unless the opposite clearly mentioned.

The contributions of researchers, students, and experts in the field of fertilizer industry and trade are highly welcomed for free publication provided that they have not been published before. The General Secretariat is not obliged to return the articles which are not published.

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Fertilizers Forum &  
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## Lofty palm tree on the road to Arab integration

**Mr. Fahad Saad Al-Sheaihi**  
Vice President- Fertilizers  
SABIC - Saudi Arabia

Palm trees in Arab countries and around the world are vulnerable and appear to be dying more rapidly than in previous years because palm red weevil. In Spain alone, almost ten million Euros are spent annually to combat the problem although only a few palm trees are infected. In Saudi Arabia about 32,000 palm trees were destroyed in 2006 at least 1,300 palm trees were destroyed every year in Bahrain. Figures vary from one Arab country to another. Such grave threat posed by the red palm weevil requires collaboration among Arab countries to combat widespread deaths of palm trees.

The Saudi Basic Industries Corporation (SABIC), in coordination with the Arab Fertilizer Association, held a two-day workshop titled 'Risks of Red Palm Weevil' on March 25 and 26, at SABIC headquarters in Riyadh, Kingdom of Saudi Arabia.

The workshop addressed several subjects, the most important of which was identifying the problems that caused the spread of the red palm weevil in the Arab region. It also reviewed techniques adopted by the Arab Organization for Agricultural Development to fight the scourge and studied the results of field applications.

It is not surprising that this Arab company bypassed the barriers of times and crossed the borders in a record period to be one of the world's top ten petrochemical companies and the largest non-oil manufacturing company in the Middle East.

SABIC is a driver of Arab economic integration through the extensive portfolio of products that includes petrochemicals, fertilizers, steel, as a basis for the development of agricultural, industrial and construction sectors. It owns three major industrial companies which produce urea, ammonia and compound and liquid phosphate fertilizers with annual capacity exceeding eight million tons. It gives preference to Arab agricultural projects and offers products backed by the highest technical services that optimize the use of each fertilizer depending on the nature of the climate, soil and crop, leading to higher levels of productivity and a growing contribution to food and clothing security.

SABIC adopts the SABIC2020 giant strategic project with the aim to become the preferred world leader in chemicals and reach an annual production capacity of 130 million tons compared with the existing 55 million tons annual capacity. SABIC plans to expand in specialty products that achieve highest value-addition to users and provide for new breakthrough prospects for the productive sectors, and create more areas to revive the economic unity within the Arab region.



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## Focus on :

- 14<sup>th</sup> AFA International Annual Fertilizer  
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5-7 February 2008, Cairo/Egypt

- The Red Palm Weevil Seminar

25-26 March 2008, SABIC - Riyadh - Saudi Arabia

## Editorial:

SABIC Vice-President - Fertilizers

- 21<sup>st</sup> Int'l.Tech. Fertilizers Conference

10-12 November 2008, Jeddah Hilton - Saudi Arabia

